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CATALOGUE

OF THE

LEPIDOPTERA PHALÆNÆ

IN THE

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SUPPLEMENT. VOLUME II.

OCT 22 1920
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CATALOGUE

OF THE

LITHOSIADÆ

(ARCTIANÆ)

AND

PHALÆNOIDIDÆ

IN THE

COLLECTION

OF THE

BRITISH MUSEUM.

BY

SIR GEORGE F. HAMPSON, BART.

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AND AT THE

BRITISH MUSEUM (NATURAL HISTORY), CROMWELL ROAD, S.W. 7.

1920.

PRINTED BY TAYLOR AND FRANCIS.
RED LION COURT, FLEET STREET.

PREFACE.

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The present volume, which is supplementary to Vol. III. of Lepidoptera Phalænæ, was in manuscript at the beginning of 1915, and the text-figures and most of the Plates had been prepared; but, owing to the European War, it was decided to postpone its publication.

It has now been completed and brought up to date as far as possible. For the reason just mentioned, however, no references will be found in it to German publications which have appeared since August 1914.

The Arctiidæ in Vol. III. included 147 genera and 845 species, and to these are added in the present volume 25 genera and 1215 species.

The Agaristidæ, for which the name Phalænoididæ is substituted, included 53 genera and 225 species, and these numbers are now increased by 7 genera and 80 species.

The term "subspecies" is occasionally made use of in this volume simply to denote that our present knowledge of the form referred to is insufficient to determine whether it is a species or an aberrational variety.

Sir George Hampson has to acknowledge the great assistance he has received from The Rt. Hon. Lord Rothschild, F.R.S., Mr. J. J. Joicey, into whose hands the collection

formed by the late Mr. Herbert Druce has passed, Dr. Harrison G. Dyar, of the U.S. National Museum, Mr. W. Schaus, M. Paul Dognin, and many others.

The coloured drawings, which have been made for him from types of species which are not in the collection of the British Museum and of which he has been unable to examine specimens, have been reproduced and are severally acknowledged in the text, and in this matter he has in especial to thank Dr. L. O. Howard, the Director of the U.S. National Museum.

The Plates in connection with this volume are numbers XLII.–LXXI. of the Supplement.

In the selection of the generic and family names employed in this volume, the author has adhered to the views which he adopted in all the previous volumes. Although some of his views on nomenclature have been rejected by the great majority of zoologists, it seems undesirable at this stage in the preparation of the Catalogue to alter the system which he has so far followed.

CHARLES J. GAHAN,
Keeper of Entomology.

British Museum (Natural History).
March 5th, 1920.

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CATALOGUE

OF

LEPIDOPTERA PHALÆNÆ.

—•—

Family LITHOSIADÆ.

The genus *Lithosia*, Fabr., 1798, type *quadra*, is older than *Arctia*, Schrank, 1802, type *caia*.

Subfamily ARCTIANÆ.

Genus **GONOTREPHES**.

Type.

Gonotrephes, Hmpsn. A. M. N. H. (8) iv. p. 348 (1909). ..... *friga*.

Proboscis aborted, minute; palpi obliquely upturned, the 2nd joint reaching to about middle of frons and moderately fringed with hair, the 3rd short; frons smooth; antennæ of male bipectinate with moderate branches to apex; tegulæ dorsally produced to form a hood; tibiæ fringed with long hair; abdomen clothed with rough hair on dorsum, the anal segment with long lateral tufts of hair. Fore wing with the apex rather produced and acute, the termen angled at vein 5, then obliquely curved; vein 3 from well before angle of cell; 5 from well above angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with vein 4 absent; 5 from well above angle of cell; 6, 7 coincident; 8 absent.

In key differs from *Thyrarctia* in the hind wing having vein 8 absent.

1194 *a*. **Gonotrephes friga**.

Thyrarctia friga, Druce, A. M. N. H. (7) xvii. p. 406 (1906).

♂. Head orange; palpi above, sides of frons, and antennæ red-brown; tegulæ and patagia red-brown; thorax orange; pectus red-brown; fore legs orange with black patch on femora above, the tibiæ red-brown, the tarsi black at extremity; mid and hind tibiæ red-brown, the tarsi white with black marks at base and extremity; abdomen red-brown, orange at base, the ventral surface white with

sublateral black points on terminal segments. Fore wing red-brown; the basal inner area orange with three black points below the cell; the medial area dull orange from cell to inner margin, crossed by three waved brown lines; a quadrate hyaline patch in end of cell with some black points on it; a patch in and beyond end of cell marbled with black and grey, extending above vein 6 half way

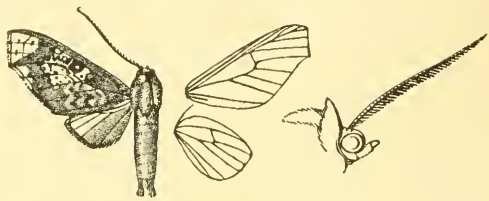

Fig. 1.—*Gonotrephes friga*, ♂. ½.

to termen; a large hyaline patch beyond the cell between veins 6 and 3 irrorated with black points and at extremity extending to just below vein 3; a slight oblique postmedial line from below costa to vein 5; a large hyaline apical patch from just below costa to vein 5 striated with rufous and a similar small bifid patch below vein 5; a fine rufous terminal line; cilia white intersected with rufous opposite the hyaline patches. Hind wing white, the inner half, veins, and cilia brownish yellow.

Hab. Peru, Carabaya (*Ockenden*), type † in Coll. Joicey, S. Domingo (*Ockenden*), 1 ♂. *Exp.* 42 millim.

*1194 *b*. **Thyrarctia semivitrea.** (Plate XLV. fig. 2.)

Thyrarctia semivitrea, Joicey, A. M. N. H. (8) xviii. p. 53, pl. xiv. f. 1 (1916).

♂. Head and thorax rufous, the tegulæ with short white stripes at middle not reaching base or tips; lower part of frons and basal joint of antennæ in front white; palpi black-brown, the 1st joint with some white in front at extremity, the 2nd white in front; fore coxæ orange, the femora black-brown, the tibiæ rufous and the tarsi white; mid and hind legs white, the femora with red-brown marks at extremity and the basal half of tibiæ red-brown; abdomen rufous, the 4th and 5th segments and the sides of 2nd and 3rd orange, the ventral surface white, large lateral black spots except on terminal segments and small sublateral spots on medial segments. Fore wing purplish rufous, the apical half white from middle of costa to termen at vein 2, semihyaline except at margins; a slight white medial line, obliquely incurved to discal fold, then some black scales beyond it in the cell on the edge of the rufous area, met at vein 2 by a slight oblique bluish white line from origin of vein 3, then with excurved bluish white shade beyond it to inner margin; a white discoidal patch edged with black scales except above and

with a few black scales on it, its inner edge sinuous and angled inwards on median nervure, its outer edge angled outwards at veins 6 and 5; a lunulate black postmedial line from vein 8 to 5 where it is bent outwards, then subterminal and waved to vein 2, a wedge-shaped purple-brown patch beyond it extending from vein 7 to below 5 and ending on termen at vein 5, and some black reticulate striæ below costa towards apex; a fine black terminal line from apex to vein 2; the cilia chequered with purple-brown at the veins. Hind wing white, the lower part of cell and whole inner area clothed with red-brown hair, the veins slightly tinged with red-brown and with slight black-brown streaks at termen. Underside of fore wing white with some diffused red-brown in the cell to the semihyaline area, a wedge-shaped red-brown mark from vein 3 near its origin to below vein 2 near termen and the wedge-shaped subapical mark; hind wing with black-brown point in the cell near base and some red-brown hair on inner area.

Hab. PERU, Upper Maranon, Rentema Falls (*Pratt*), type † ♂ in Coll. Joicey. *Exp.* 58 millim.

Genus **ZÆVIUS.**

Type.

Zævius, Dyar, Zoologica, N. Y. i. p. 126 (1910) ..... *calocore.*

Proboscis small; palpi upturned to middle of frons, the 3rd joint minute; antennæ bipectinate with short branches; tibiæ with the spurs moderate; abdomen of male with large anal tuft. Fore wing with the apex produced and acute, the termen excised to vein 5 where it is angled, then oblique; vein 3 from before angle of cell; 4, 5 separate; 6, 7, 8, 9, 10 stalked, 10 from beyond 7; 11 from the cell. Hind wing with vein 2 from well before angle of cell; 3 and 5 stalked, 4 absent; 6, 7 coincident; 8 from before middle of cell.

In key differs from *Arœomolis* etc. in the hind wing having veins 3 and 5 stalked; 6, 7 coincident.

*1194 *c.* **Zævius calocore.**

Zævius calocore, Dyar, Zoologica, N. Y. i. p. 126, f. 41. no. 3 (1910).

♂. Head, thorax, and abdomen orange-yellow tinged with red-brown; some crimson below the eyes; pectus, legs, and ventral

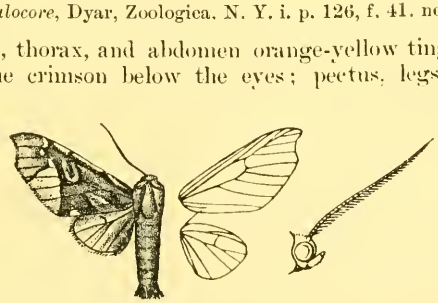

Fig. 2.—*Zævius calocore*, ♂. ½.

surface of abdomen pink, the tarsi white. Fore wing yellow suffused with red-brown; a wedge-shaped pink subbasal mark from costa to vein 1; a white fascia on medial part of costa and a post-

medial bar from costa with a point below it above vein 6; some pink in and beyond end of cell; an oblique wedge-shaped pink patch from near base of vein 2 to inner margin and a small post-medial mark; a large triangular semihyaline white patch from vein 6 to termen from below vein 4 to tornus, its inner edge incurved, its apex rather bent outwards, the terminal area above it yellow with red-brown streaks on the veins. Hind wing semihyaline white, the inner area suffused with pink; a pink discoidal point; the costal area yellow. Underside of fore wing with the basal area orange-red, the costa purplish.

Hab. Br. Guiana, Hoorie (*Beebe*). *Exp.* 40 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

1195 *a*. Robinsonia prophæa.

Robinsonia prophæa, Dogn. Ann. Soc. Ent. Belg. l. p. 181 (1906); Roths. Nov. Zool. xvi. pl. 4. f. 2.

♂. Head yellow; palpi, lower part of frons, and antennæ brown; thorax pure white; pectus and legs whitish, the fore and mid legs brown above; abdomen pale yellowish, white at base and extremity and with greyish lateral stripes. Fore wing pure white, thinly scaled, the costal edge dark brown. Hind wing pure white, thinly scaled.

Hab. Peru, Carabaya, type † ♂ in Coll. Dognin, La Oroya (*Ockenden*), 3 ♂. *Exp.* 40 millim.

*1195 *b*. Robinsonia marginata.

Robinsonia marginata, Roths. Nov. Zool. xvi. p. 21, pl. 4. f. 1 (1909).

♀. Head and thorax silvery white; palpi except basal joint, antennæ, and stripes on shoulders red-brown; fore and mid tibiæ and tarsi suffused with red-brown; abdomen white with the dorsum yellow except terminal segments. Fore wing silvery white; a red-brown costal fascia narrowing to a point at apex; cilia red-brown, expanding into small spots on termen below veins 7, 6. Hind wing semihyaline white.

Hab. Br. Guiana, type † ♀ in Coll. Rothschild. *Exp.* 44 millim.

*1195 *c*. Robinsonia flavicorpus. (Plate XLII. fig. 10.)

Robinsonia flavicorpus, Dogn. Hét. Nouv. Am. Sud, i. p. 7 (1910).

♂. Head and thorax pure white, the antennæ and palpi except 1st joint brown; shoulders with chocolate-brown patches; fore and mid tibiæ and tarsi brownish; abdomen yellow with dorsal series of white points, the ventral surface white. Fore wing pure white; a chocolate-brown fascia on costa expanding slightly at origin of vein 7; a narrow chocolate-brown terminal band from below apex

to above tornus, its inner edge slightly dentate in the interspaces, expanding somewhat at vein 5 where it encloses a minute white spot. Hind wing pure white.

Hab. Fr. Guiana, St. Jean Maroni (*Le Moult*), type † ♂ in Coll. Dognin. *Exp.* 34 millim.

1196. *Robinsonia grotei*, insert :—

Robinsonia devitzi, Gundl. Ent. Cuba, Lep. i. p. 265 (1881), which has precedence.

*1196*a*. Robinsonia similis.

Robinsonia similis, Roths. Nov. Zool. xvi. p. 22, pl. 4. f. 7 (1909).

♂. Head orange-yellow, the palpi except basal joint and antennæ brown; thorax red-brown, the tegulæ and patagia with white patches, a slight white streak on dorsum; pectus and legs white, the fore and mid tibiæ and tarsi streaked with brown; abdomen orange-yellow, lateral series of black bars except towards base, the ventral surface white. Fore wing red-brown; some white at base of inner margin; a large white patch below the cell with pointed extremities from near base to near termen, where it is confluent with a white patch at tornus, also confluent with a white mark below middle of vein 1; a large triangular white patch from end of cell to apex and to near termen below vein 3; a white line on termen except towards apex. Hind wing semihyaline white.

Hab. Trinidad, Caparo (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

*1196*b*. Robinsonia punctata.

Robinsonia punctata, Roths. Nov. Zool. xvi. p. 22, pl. 4. f. 6 (1909).

♂. Head and thorax red-brown, the vertex of head orange-yellow; palpi with some white at extremities of 1st and 2nd joints and the 3rd joint white; frons white; antennæ with the basal joint white in front; tegulæ, patagia, and metathorax with white patches; pectus and legs white, the fore and mid legs streaked with brown; abdomen orange-yellow with dorsal series of white points, the extremity and ventral surface white. Fore wing red-brown with large elliptical white patch from near base to beyond middle and from middle of cell to vein 1, its outer extremity pointed; some white at base of inner margin; a large triangular white patch from end of cell to just before termen at apex and below vein 3; a spot above tornus; cilia white. Hind wing semihyaline white.

Hab. Mexico, Vera Cruz, Huatuxco, type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

1196 *c*. Robinsonia clagesi.

Robinsonia klagesi, Roths. Nov. Zool. xvii. p. 187, pl. 14. f. 9 (1910).

Head white with some yellowish between antennæ; palpi with blackish spots on the joints; antennæ brown, the shaft ringed with white; thorax fulvous brown with broad white stripes on tegulæ and patagia; pectus and legs white; abdomen orange-yellow with dorsal white stripe, the extremity and ventral surface white. Fore wing fawn-brown; a white fascia from base of vein 1 broadening to lower angle of cell, bent upwards and broad beyond the cell, then oblique and narrowing to just below apex; a white streak on inner margin. Hind wing pure white, rather thinly scaled.

Hab. Venezuela, San Esteban (*Klages*), 1 ♂, type † ♀ in Coll. Rothschild. *Exp.* 42 millim.

*1196 *d*. Robinsonia morula.

Robinsonia morula, Druce, A. M. N. H. (7) xviii. p. 81 (1906); Roths. Nov. Zool. xvi. pl. 4. f. 4.

♂. Head and thorax white; palpi brown in front; antennæ black; tegulæ brown on outer half; patagia brown with some white at base and tips; legs brown; abdomen brown with greyish white dorsal stripe becoming white at base, a white band on penultimate segment, the anal segment black with white dorsal stripe, the ventral surface white tinged with brown. Fore wing pale brown, the veins dark brown; a broad oblique white fascia with rather irregular diffused edges from submedian fold near base to costa just before apex. Hind wing white, the inner area tinged with brown towards tornus; the veins brownish; the underside tinged with brown leaving the cell and apical part of costa white.

Hab. Peru, S. Domingo (*Ockenden*), type † ♂ in Coll. Joicey. *Exp.* 44 millim.

*1198 *a*. Robinsonia multimaculata.

Robinsonia multimaculata, Roths. Nov. Zool. xvi. p. 21, pl. 4. f. 5 (1909).

♂. Head and thorax dark brown, back of head and metathorax deep orange, the palpi with white spots on the joints, the frons with pair of white spots, the basal joint of antennæ with white points, the vertex of head, tegulæ, patagia, and metathorax with white patches; pectus and legs white, the latter streaked with dark brown, slight orange streaks below shoulders; abdomen orange with dorsal series of white points, the ventral surface white, slight black lateral streaks and a ventral band on terminal segment. Fore wing red-brown; some white points at base and a slight subbasal streak below costa; a large elliptical white antemedial patch below the cell and slight streak above inner margin; a triangular white spot in end of cell and white point on middle of vein 1; a large triangular patch beyond the cell from above vein 6 to below 3 with

a slight streak above it on vein 7; the terminal area with two elliptical patches below apex and one above tornus with a series of four small elongate spots between them and minute streaks below veins 5, 4, the spot at vein 3 bifid. Hind wing semihyaline white.

Hab. S.E. Peru, Carabaya, S. Domingo (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 52 millim.

1199 *a*. **Robinsonia catasticta.** (Plate XLII. fig. 17.)

Robinsonia catasticta, Hmpsn. Nov. Zool. xxiii. p. 230 (1916).

♂. Head and thorax white, the back of head yellow, the tegulæ and patagia at edges and the dorsum of thorax with fulvous brown streaks; antennæ black; palpi with some yellow at base, the 2nd and 3rd joints with brown bands; pectus with some yellow in front; legs streaked with brown; abdomen orange with dorsal series of white points, the ventral surface white. Fore wing fulvous brown; a yellowish streak below the costa from near base to beyond middle; an oblique quadrate white patch in and below middle of cell, a white patch at base of inner margin, and white streaks above and below middle of vein 1; an oblique quadrate white patch beyond the cell; a subapical white patch with bidentate outer edge; a subterminal white point on vein 5, spot on vein 4, elongate spot on vein 2 with small spot below its extremity, elongate spot in submedian interspace and streak on terminal part of inner margin. Hind wing pure white. Underside of fore wing white with the costal edge brown and some brown on costa and termen towards apex.

Hab. Peru, Yahuarmayo, 1 ♂ type. *Exp.* 34 millim.

*1200 *a*. **Robinsonia rocstonia.** (Plate XLII. fig. 11.)

Robinsonia rockstonia, Schaus, Pr. U.S. Nat. Mus. xxix. p. 206 (1906).

♂. Head and thorax black; palpi with white spot on each joint, sides of frons and vertex of head with paired spots, back of head with three spots, tegulæ each with pair of spots, patagia with large patches and prothorax with pair of spots; genæ and front of pectus orange; meso- and metathorax with dorsal orange fascia; pectus and legs white, the latter streaked with fuscous; abdomen with dorsal orange fascia, subdorsal fuscous fasciæ and the lateral and ventral areas white. Fore wing fuscous brown with broad subcostal orange fascia from near base to before apex; a white point at base; a large somewhat wedge-shaped white patch in submedian interspace, wedge-shaped patches above veins 2 and 3, and a larger patch between veins 4 and 6; two round white subapical spots with two striæ below them. Hind wing white with diffused fuscous streaks below veins 2 and 1.

Hab. Br. Guiana, Essequebo, Rockstone, type † ♂ in U.S. Nat. Mus. *Exp* 44 millim.

*1200 *b*. Robinsonia baughaasi.

Robinsonia baughaasi. Roths. Nov. Zool. xviii. p. 157 (1911), & xix. pl. 5. f. 17.

♀. Head and thorax reddish brown; small paired white spots on frons and between antennæ, a larger spot on vertex of head and pair of minute spots at back of head: palpi with white patches on the joints: tegulæ with white spots at middle and sides: patagia with white spots near base of upper edge and some white at extremity: metathorax with some white at sides: pectus and legs white, the latter suffused with brown: abdomen white with dorsal yellow stripe defined on each side by reddish brown stripes. Fore wing reddish brown: a small elongate white spot below middle of cell, minute spot in end of cell, elliptical spot above base of vein 5 with minute spot below it, and small obliquely placed subapical spots above and below vein 7: the veins of terminal half with faint pale streaks. Hind wing white, the terminal area brown to just below vein 2 where the brown extends almost to the cell: some brown on terminal part of vein 1: the underside with some brown suffusion on costa and on the veins of terminal area.

Hab. Brazil, Matto Grosso, type † ♀ in Coll. Rothschild. *Exp.* 42 millim.

*1201 *a*. Robinsonia irregularis. (Plate LXV. fig. 1.)

Robinsonia irregularis. Roths. Nov. Zool. xxiv. p. 475 (1917).

♂. Head black-brown with two white spots on frons, a bar above it and spot on vertex of head, the palpi with white patches on each joint: thorax dark yellowish brown, the tegulæ with two white spots on each, the patagia white edged with brown: abdomen yellow with maculate brown subdorsal stripes on basal half and some white at sides towards base: pectus and legs white, the tibiæ and tarsi striped with fuscous. Fore wing yellow-brown: an elongate curved white patch below the cell, narrowing towards base and rather bifid at extremity: a small white spot in the cell towards extremity: a quadrate white patch beyond the cell with its outer edge somewhat bifid, white spots above veins 6 and 7 placed obliquely towards apex, the lower elongate, the upper smaller, elongate spots above bases of veins 3 and 2, and a streak below middle of vein 1. Hind wing white with some brown in terminal part of submedian fold.

Hab. Brazil, Matto Grosso, Cuyaba (*Zobrys*), type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

*1201 *b*. Robinsonia longimacula. (Plate XLII. fig. 16.)

Robinsonia longimacula. Schaus, Trans. Am. Ent. Soc. xli. p. 2 (1915).

♂. Head and thorax white, the tegulæ and patagia with brown streaks at edges, the dorsum of thorax with yellow streak; antennæ

and palpi towards tips brown; legs streaked with brown; abdomen orange-yellow with subdorsal dark brown streaks meeting at extremity. Fore wing brown with yellow streak below costa, two in the cell, a streak above inner margin, and streaks on the veins of terminal area; a wedge-shaped white patch in submedian interspace from near base to termen and an oblique series of elongate spots from apex to vein 2, the spot above vein 5 longer. Hind wing white with some ochreous yellow along vein 1 and at extremity of vein 2.

Hab. BRAZIL, Joinville. *Exp.* 46 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

*1201 *c*. Robinsonia suffusa.

Robinsonia suffusa, Roths. Nov. Zool. xvi. p. 21. pl. 4. f. 3 (1909).

♂. Head and thorax white, the head and tegulæ tinged with yellow; antennæ brown except at base; shoulders with brown stripes; patagia edged with brown on outer side; tibiæ striped with brown, the tarsi suffused with brown; abdomen white, dorsally tinged with brown except at base. Fore wing white; the costal area brown with a slight pale streak below costa; the veins streaked with brown; an oblique brown streak from middle of vein 2 to vein 1 near base, emitting a fork to vein 1 beyond middle; a brown streak below vein 1 except towards base; brown streaks in the interspaces between veins 4 and 2; the terminal area brown from apex to vein 2, expanding between veins 6 and 4. Hind wing semihyaline white; the underside with the veins streaked with brown except on inner area.

Hab. BRAZIL. Up. Amazon. Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 38 millim.

*1202 *a*. Robinsonia evanida. (Plate XLII. fig. 15.)

Robinsonia evanida, Schaus, Pr. U.S. Nat. Mus. xxix. p. 206 (1906).

♀. Head and thorax white; palpi brownish above; patagia fringed with brownish hair; metathorax with orange lateral patches; pectus orange in front; abdomen orange with dorsal white points except on first two segments, the ventral surface white. Fore wing white with a faint brown tinge except in submedian interspace and between veins 3 and 6, which are very slightly semihyaline; the costal edge brown. Hind wing semihyaline white.

Hab. CUBA, Santiago. type † ♀ in U.S. Nat. Mus. *Exp.* 38 millim.

*1203 *a*. Neidalia dognini.

Neidalia dognini, Roths. Nov. Zool. xvi. p. 22 (1909), & xvii. pl. 12. f. 9.

♂. Head, thorax, and abdomen orange-red. Fore wing yellow suffused and irrorated with orange-red, the interspaces of terminal

half rather yellow; an inwardly oblique blackish antemedial line from just below costa to inner margin; postmedial line blackish, arising just below costa, excurved below costa, oblique below vein 4 and slightly bent outwards to inner margin. Hind wing pale yellow tinged with scarlet.

Hab. S.E. Peru, Carabaya, S. Domingo (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 38 millim.

1203 *b*. **Neidalia irrorata.** (Plate LXV. fig. 2.)

Neidalia irrorata, Roths. Nov. Zool. xxiv. p. 475 (1917).

♂. Head, thorax, and abdomen scarlet, the last with some fuscous at sides and on ventral surface. Fore wing scarlet thickly irrorated with yellow; antemedial line fuscous brown, inwardly oblique, straight; a blackish striga on upper discocellular; postmedial line fuscous brown, excurved below costa, then oblique; cilia and inner margin except towards base fuscous brown. Hind wing uniform scarlet.

♀. Palpi and legs reddish brown; abdomen with the anal tuft and ventral surface ochreous; fore wing with the lines deep scarlet and fuscous, a minute blackish spot at lower angle of cell; hind wing with the cilia yellow.

Hab. Peru, Yahuarmayo (*Watkins*), 2 ♂, type † ♂ ♀ in Coll. Rothschild. *Exp.* ♂ 36, ♀ 46 millim.

*1203 *c*. **Neidalia occendeni.**

Neidalia ockendeni, Roths. Nov. Zool. xvii. p. 6 (1910), & xvii. pl. 13. f. 7.

♂. Head, thorax, and abdomen yellow suffused with crimson; palpi brownish at tips; antennæ brownish; pectus, legs, ventral surface and extremity of abdomen yellow, the pectus in front and fore legs suffused with brown. Fore wing yellow irrorated with crimson, thickly except towards termen, the veins brownish, the costal edge red-brown; an inwardly oblique red-brown antemedial line from costa to vein 1; a brown discoidal striga; postmedial line red-brown, inwardly oblique, slightly excurved to vein 4, then slightly incurved and somewhat dilated at inner margin which is streaked with brown except towards base; cilia red-brown. Hind wing yellow tinged with crimson. Underside wholly yellow.

Hab. Peru, Carabaya, La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 36 millim.

*1204 *a*. **Idalus doncasteri.** (Plate XLII. fig. 21.)

Idalus doncasteri, Roths. Nov. Zool. xvii. p. 6 (1910).

♂. Head and thorax pale yellow; palpi tinged with crimson at base and grey-brown at tips; lower part of frons grey-brown; antennæ grey-brown, white at tips; patagia with grey-brown and

pale crimson streaks on upper edge; some crimson below shoulders; extremities of femora and the tibiæ suffused with grey-brown; abdomen crimson, the base, extremity and ventral surface yellow. Fore wing pale yellow; a subbasal brown point in cell; an oblique antemedial brown bar formed of two spots with some whitish scales on them, separated by a slight crimson streak in submedian fold, from cell to just below vein 1; a small brown spot in middle of cell; a brown point in upper extremity of cell and four points beyond and below the cell from above vein 6 to before vein 2; an oblique postmedial series of small brownish spots with white centres, the spot at costa wedge-shaped and slightly edged with crimson and a large spot above vein 1 conjoined to a wedge-shaped patch on inner margin; a subterminal series of brown points. Hind wing pale yellow, the inner area tinged with crimson; the underside yellowish white.

♀. Patagia without the streak on upper edge; fore wing without the antemedial band, the postmedial spots reduced to brown points except towards inner margin, absent above vein 6, a brown spot on costa just before apex.

Hab. Venezuela, Caracas, type † ♂ ♀ in Coll. Rothschild. *Exp.*, ♂ 42, ♀ 50 millim.

*1204 *b*. **Idalus neja.** (Plate XLII. fig. 22.)

Idalus neja, Schaus, Pr. U.S. Nat. Mus. xxix. p. 208 (1906).

Antennæ of male bipectinate, the apical half simple.

♂. Head, thorax, and abdomen chrome-yellow; palpi whitish tinged with fuscous above; patagia with reddish brown patches; legs and ventral surface of abdomen whitish. Fore wing chrome-yellow; two pale red-brown spots below base of cell; large conjoined reddish brown spots below costa and cell and a small spot on inner margin; small spots in and below end of cell and four small spots just beyond the cell; a postmedial series of irregularly placed spots, the three towards costa larger, and a large irregular patch on inner margin; a subterminal series of small spots with spot before it below costa; a terminal series of small spots. Hind wing semi-hyaline whitish, the inner area and cilia yellow.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 40 millim.

*1204 *c*. **Idalus catenata.** (Plate XLIII. fig. 1.)

Idalus catenata, Schaus, Pr. U.S. Nat. Mus. xxix. p. 209 (1906).

♀. Head, tegulæ, and base of patagia chrome-yellow; palpi, frons at sides, basal joint of antennæ, and a ring round neck scarlet; patagia pale brownish edged with scarlet; thorax clothed with yellow, brownish, and scarlet hair; fore coxæ and tibiæ and tarsi at sides and extremities of mid and hind tarsi scarlet; the extremity of femora and base of tibiæ brownish; abdomen yellow tinged with

scarlet at base of dorsum. Fore wing chrome-yellow; the submedian interspace pale brown edged with scarlet, expanding into the cell near base and at middle and to inner margin before middle and towards tornus, some scarlet in medial part of submedian fold; two small scarlet-edged brown spots in end of cell and two beyond the end; an oblique series of conjoined brown spots intersected by scarlet streaks on the veins from costa towards apex to vein 2, the spots above veins 7 and 5 rather more elongate; a subterminal series of small round brown spots from apex to vein 2. Hind wing yellow, the inner area tinged with scarlet.

♂. Fore wing with the postmedial series of spots reduced and well separated; hind wing white faintly tinged with yellow.

Hab. Brazil, Castro Paraña, type † ♀ in U.S. Nat. Mus., ♂ in Coll. D. Jones. *Exp.* 44 millim.

*1204*d*. Idalus tetrodonta. (Plate XLIII. fig. 2.)

Idalus tetrodonta, Dogn. Mém. Soc. Ent. Belg. xviii. p. 151 (1911).

♂. Head and thorax yellow; palpi crimson at sides and brown above; frons with lateral crimson spots; antennæ brown with the basal joint crimson; neck with crimson ring; patagia with their upper edge crimson and brown; pectus in front and at sides crimson, the fore and mid legs with the femora and tibiæ streaked with crimson and brown; abdomen crimson, the ventral surface white. Fore wing yellow; the base of inner margin suffused with crimson; a purple-brown triangular patch edged with crimson and the veins on it streaked with crimson from costa before middle to vein 1 near base and to tornus, leaving a yellow spot edged with crimson on middle of inner margin, the outer edge of the patch dentate at median nervure and above vein 2; slight purplish grey spots in upper angle of cell and beyond the cell between veins 6 and 3; a purple-brown band edged with crimson from costa to vein 5, its outer edge produced on costa to apex, then indented, with small purplish grey spots below veins 5 and 4 between it and the triangular patch; a subterminal series of small purplish grey spots from below vein 7. Hind wing pale yellow, the inner area tinged with crimson, a purplish grey tinge on termen between veins 2 and 1.

Hab. Venezuela, Merida, type † ♂ in Coll. Dognin. *Exp.* 54 millim.

*1204*e*. Idalus affinis.

Amaxia affinis, Roths. Nov. Zool. xvi. p. 34, pl. 5. f. 15 (1909).

♂. Head, tegulæ, and shoulders yellow; palpi crimson, yellow in front towards tips and black behind; antennæ red-brown, white towards tips; base of tegulæ crimson; thorax red-brown with crimson streaks on upper edge of patagia; pectus and legs yellow, the fore coxæ, tibiæ on inner side and tarsi at extremities crimson, the femora blackish above; abdomen crimson, the extremity and

ventral surface yellow. Fore wing yellow; a large red-brown patch edged with crimson on inner area from near base to tornus, extending into the cell near base and at middle, its outer edge sinuous and with crimson streaks on the veins towards its outer edge; a small brown spot in upper extremity of cell and four spots beyond the cell between veins 7 and 3; three conjoined rather elongate postmedial brown spots defined by crimson from below costa to vein 5 forming a lunulate mark and followed by three small spots between veins 5 and 2; a subterminal series of small spots and a terminal series. Hind wing semihyaline white.

Hab. Peru, Carabaya, San Domingo (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

*1204 *f.* Idalus favillacea.

Automolis favillacea, Roths. Nov. Zool. xvi. p. 36, pl. 5. f. 28 (1909).

♀. Head and thorax pale reddish brown; palpi whitish in front; pectus whitish, the tibiæ and tarsi dark brown; abdomen dark brown, the extremity and ventral surface whitish. Fore wing pale red-brown; a faint dark discoidal shade and four points beyond the cell between veins 7 and 3; a curved postmedial series of minute dark spots with more prominent spots at discal fold and above vein 1, where it is confluent with a subterminal series of minute spots with diffused spots at apex and inner margin. Hind wing brown, the costal area whitish; the underside brownish white.

Hab. Surinam, Maroewyn Valley, Aroewarwar Creek (*Klages*), type † ♀ in Coll. Rothschild. *Exp.* 46 millim.

*1204 *g.* Idalus punctata.

Halisidota punctata, Roths. A. M. N. H. (8) iv. p. 217 (1909); id. Nov. Zool. xvii. pl. 12, ff. 38, 39, 40.

♂. Head yellowish white, the palpi except 3rd joint and the antennæ except basal joint red-brown; thorax red-brown with yellowish white patches on outer edge of patagia and on metathorax and a streak on dorsum of thorax, the pectus and base of legs yellowish white; abdomen red-brown with the anal tuft and ventral surface yellowish white. Fore wing red-brown, some pale yellow at base of inner margin, a quadrate antemedial spot on costa and two small obliquely placed spots below the cell; a large pale yellow patch on costa beyond middle extending into the cell and enclosing an irregularly rounded red-brown patch on costa with a yellow point on it; a yellow point just beyond lower angle of cell, two small obliquely placed spots below the cell and two conjoined patches between vein 2 and inner margin; some yellow points on costa towards apex and a postmedial striga below costa; two small subterminal spots above and below vein 2; an irregular yellow patch on apical part of termen, a patch at middle of termen with some red-brown striæ on it, and a spot in submedian interspace;

cilia yellow with a series of red-brown spots and intersected by streaks at discal and submedian folds. Hind wing pale yellow, the inner area suffused with red-brown; a red-brown spot at lower angle of cell and a broad terminal band; the cilia yellow with red-brown spots; the underside with quadrate discoidal patch, the band subterminal and ending at submedial fold.

Ab. 1. Patagia and thorax with the pale patches smaller; fore wing irrorated with yellow, the yellow patches reduced to much more definite series of spots; hind wing without terminal band.

Ab. 2. Fore wing with the yellow markings still further reduced to series of small spots; hind wing with the brown suffusion on terminal area slight and without terminal band.

Hab. S.E. Peru, Carabaya, S. Domingo (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 42 millim.

1205 *a*. Idalus costaricensis.

Neaxia costaricensis, Roths. Nov. Zool. xvi. p. 269 (1909), & xviii. pl. 5. f. 10.

♂. Head, tegulæ, and shoulders bright yellow; palpi with some crimson and brown at base; antennæ brown, white at tips; thorax brown, the patagia edged with crimson; pectus brown with some crimson in front; legs yellow, the mid and hind tibiæ and tarsi white; abdomen crimson, the anal tuft and ventral surface yellow. Fore wing yellow with a large purple-brown patch from base below costa to middle and thence with oblique waved outer edge to tornus, edged with crimson and with crimson streaks on base of inner margin and vein 1, a yellow spot defined by crimson on it at middle of inner margin; small brown spots beyond the cell below veins 7, 6, and 3; an incurved series of three brown spots edged with crimson between veins 8 and 5 towards apex, followed by small brown spots below veins 5 and 4; a subterminal series of small brown spots from apex to submedian fold. Hind wing yellow, the inner area suffused with crimson; the underside with the costal half whitish.

♀. Thorax yellow and crimson without any brown; fore wing with the purple-brown at base reduced to an irregular subbasal patch, all the spots larger especially those below end of cell and the postmedial series which are prominently defined by crimson.

Hab. Costa Rica, Juan Vinas (*Schaus*), 1 ♂, 1 ♀, Sitio (*Schaus*), 1 ♀, Carablanca de Sarapique, type† ♂ in Coll. Rothschild. *Exp.*, ♂ 36, ♀ 48 millim.

1205 *b*. Idalus irrupta. (Plate XLIII. fig. 3.)

Automolis irrupta, Schaus, Pr. U.S. Nat. Mus. xxix. p. 215 (1906).

♂. Head and thorax yellow; palpi at sides and above and patches on frons, vertex of head and tegulæ crimson; patagia with crimson streaks and edged with crimson; thorax streaked with crimson, the metathorax with pair of white spots; pectus and legs whitish, the fore legs crimson in front; abdomen crimson, the

extremity yellowish, the ventral surface white. Fore wing yellow, the costal area brownish, the veins, discal and submedian folds defined by crimson streaks to near termen, where they are connected in the interspaces; a waved brown antemedial line; medial crimson bars between veins 2 and 1 and submedian fold; small brown annuli in, beyond and below end of cell with an oblique line from them to tornus; an oblique subterminal series of small elliptical brown annuli; a terminal series of brown points. Hind wing crimson, the costal area and inner margin yellowish.

Hab. Fr. Guiana, St. Jean Maroni (*Schaus*). 1 ♂. *Exp.* 40 millim.

*1205 *c.* Idalus lutescens.

Idalus lutescens, Roths. Nov. Zool. xvi. p. 23, pl. 4. f. 8 (1909).

♂. Head, thorax, and abdomen yellow; palpi black; fore femora above and tibiæ behind blackish; fore and mid tarsi at extremity and the hind tarsi blackish. Fore wing yellow, the postmedial part of costal edge tinged with brown. Hind wing yellow.

Hab. Peru, Carabaya, Oconeque (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

1205 *d.* Idalus flavibrunnea.

Idalus flavibrunnea, Dognin, Ann. Soc. Ent. Belg. l. p. 181 (1906).

Antennæ of male with short branches ending in bristles; hind wing with the costa highly arched, a small round glandular swelling in cell, vein 8 from angle.

♂. Head and thorax deep orange; palpi, frons, and antennæ black-brown; tegulæ with slight black-brown dorsal line; thorax with narrow dorsal brown streak; pectus and legs brown, the fore and mid femora and tibiæ and the fore tarsi streaked with whitish, the coxæ with some blue; abdomen orange with dorsal black stripe expanding into a triangular dorsal patch on terminal

Fig. 3.—*Idalus flavibrunnea*, ♂. ½.

segments shot with metallic blue towards extremity, the anal segment whitish above, lateral black stripes. Fore wing deep orange, the area beyond the cell pale red-brown to vein 2 and tornus emitting a wedge-shaped patch below the cell to origin of vein 2; the subcostal and median nervures finely streaked with brown. Hind wing pale orange-yellow; cilia brown.

Hab. Peru, Carabaya, La Oroya (*Ockenden*), 2 ♂, type † ♂ in Coll. Dognin. *Exp.* 42 millim.

*1205 *e*. Idalus melanopasta.

Idalus melanopasta, Dognin, Ann. Soc. Ent. Belg. li. p. 226 (1907).

Hind wing of male with the costa highly arched, dilated and somewhat produced at apex, a small patch of brown androconia on upperside well beyond lower angle of cell; vein 8 from middle of cell..

♂. Head and thorax red-brown slightly mixed with greyish; palpi at base white, crimson above; antennæ with the basal joint crimson behind, the tips whitish; neck with crimson ring; pectus and legs white, the fore tibiæ crimson on inner side; abdomen crimson with two dorsal white points at base, the extremity orange with the anal tuft at tip and the ventral surface white. Fore wing greyish suffused with red-brown especially at base and below costa, the costal edge white with slight crimson streak below it at base, a slight crimson mark at base of inner margin; the medial area irrorated with black spots in the interspaces except towards costa

Fig. 4.—*Idalus melanopasta*, ♂. ½.

and inner margin; the postmedial area with diffused crimson striæ and with series of blackish points above veins 7, 6, 5; a terminal yellow band slightly defined by crimson on inner side, narrowing to points at apex and tornus and its inner edge angled outwards to near termen at vein 5, a series of minute blackish streaks on the extremities of the veins. Hind wing with the costal half ochreous white with patch of brown androconia beyond lower angle of cell, the inner half crimson with the cilia ochreous white, the cilia of inner margin white; the underside white with the inner half, except inner margin, and terminal area tinged with crimson.

Hab. Fr. Guiana, St. Laurent Maroni, type † ♂ in Coll. Dognin. *Exp.* 40 millim.

*1205 *f*. Idalus laurentia. (Plate XLIII. fig. 4.)

Idalus laurentia, Schaus, Pr. U.S. Nat. Mus. xxix. p. 207 (1906).

Antennæ of male bipectinate; hind wing with the costal area greatly dilated, patches of white androconia below cell of fore wing on underside and below costa of hind wing on upperside.

♂. Head, thorax, and abdomen chrome-yellow; palpi black above and with black ring at extremity of 2nd joint; antennæ brown at middle and white at tips; patagia with brown lines near edges;

fore coxæ and femora in front black, the tibiæ and extremity of tarsi spotted with black; the greater part of pectus, legs, and ventral surface of abdomen white. Fore wing chrome-yellow; two small brown annuli at base; an irregular series of antemedial marks edged with brown, the spot above vein 1 forming a hook and most of the other marks elongate; some black striæ below middle of costa, a small annulus in end of cell and another above base of vein 2; elongate annuli above veins 6 and 5 and minute spots above 4, 3; a postmedial series of annuli, larger and incurved towards costa and another series just before termen, the spot above vein 1 elongate. Hind wing white, the inner and terminal areas tinged with yellow.

Hab. Fr. Guiana, St. Laurent Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 38 millim.

*1205 *g*. **Idalus rubens.** (Plate XLIII. fig. 5.)

Idalus rubens, Schaus, Pr. U.S. Nat. Mus. xxix. p. 207 (1906).

♂. Head and thorax ochreous yellow; palpi above, a bar across frons, shaft of antennæ to middle, an ×-shaped mark on vertex of head, annuli on tegulæ and patagia and a dorsal streak on thorax crimson; tips of patagia crimson with a white spot; pectus and legs whitish; the fore coxæ, tibiæ, and base of tarsi crimson in front, two spots on fore and mid tibiæ and one on hind and extremity of tarsi brown; abdomen crimson, a line on subterminal segment and anal tuft white, the ventral surface white. Fore wing ochreous yellow, the veins, discal and submedian folds crimson; three subbasal crimson spots with another beyond them in cell, an elongate spot on middle of inner margin and a bar between base of vein 2 and submedian fold; the costal area thickly mottled with brown; an antemedial band of mottled brown patches in the interspaces; a patch in and beyond end of cell; a subterminal series of elongate mottled brown marks in the interspaces, those above veins 7, 5, 2 extending to nearer termen, the mark above 3 small and round; a series of small brown spots on termen and cilia. Hind wing crimson, the costal area whitish; the cilia yellowish white.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 32 millim.

*1205 *h*. **Idalus rufobasalis.**

Amaxia rufobasalis, Roths. Nov. Zool. xvi. p. 34, pl. 5. f. 19 (1909).

♂. Head, tegulæ, and shoulders white; palpi with some crimson at sides and black behind; frons with crimson bar; antennæ brown, white at base and tips; thorax crimson suffused with purplish; pectus and legs white, the fore femora brown above; abdomen crimson, the anal tuft and ventral surface white. Fore wing yellow; a large purplish patch edged with crimson on inner area extending from base to tornus and to below costa near base and at

middle, its outer edge angled at vein 3, then sinuous, the median nervure and vein 2 on it streaked with crimson; a small brown annulus in end of cell and four beyond the cell between veins 7 and 3, a postmedial series from costa to vein 2, the annulus at

Fig. 5.—*Idalus rufobasalis*, ♂. ½.

discal fold displaced outwards, with two small annuli tinged with crimson beyond it on costa and one below costa, and a series just before termen. Hind wing crimson with the costal area white; the underside white faintly tinged with crimson.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 36 millim.

*1205 *i*. Idalus reticulata.

Automolis reticulata, Roths. Nov. Zool. xvi. p. 48, pl. 6. f. 38 (1909).

♂. Head, thorax, and abdomen whitish mixed with red-brown; palpi red-brown, white in front; antennæ red-brown; pectus, legs, and ventral surface of abdomen pure white, the fore tarsi red-brown. Fore wing pale red-brown thickly irrorated with dark brown; subbasal whitish points below costa and cell; an irregular semihyaline yellow band from costa near base to submedian fold, constricted below costa, a minute spot beyond it in cell; two pairs of minute whitish medial spots in submedian interspace; a large semihyaline yellow triangular patch from medial part of costa ending in a point above vein 1 towards termen with very irregular edges and three minute red-brown spots on it in end of cell and four spots beyond the cell; a subterminal series of very irregular small hyaline spots from costa to vein 2, the spot above vein 6 larger; a terminal series of small irregular hyaline spots. Hind wing white with triangular patch of red-brown suffusion on terminal area from apex to submedian fold; the underside white.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 34 millim.

*1207 *a*. Idalus fasciipuncta.

Automolis fasciipuncta, Roths. Nov. Zool. xvi. p. 37, pl. 5. f. 31 (1909).

♂. Head and thorax white, the head, tegulæ, and prothorax tinged with yellow; palpi blackish behind; antennæ blackish except at base; fore and mid tibiæ with black bars; abdomen

white, the medial segments dorsally tinged with yellow. Fore wing pure white; a small subbasal black spot below the cell; three small spots in end of cell, five beyond the cell and four short streaks between lower angle of cell and inner margin. Hind wing pure white.

Hab. Brazil, Up. Amazons, Fonte Boa; Peru, Carabaya, R. Huacamayo, La Union, type † ♂ in Coll. Rothschild, R. Inambari, La Oroya. *Exp.* 36 millim.

1208 *a*. Idalus pseudameoides.

Automolis pseudameoides, Roths. Nov. Zool. xvi. p. 43 (1909), & xvii. pl. 12. ff. 28, 29.

♂. Head black; palpi white in front; frons with lateral white points; antennæ with the basal joint white in front; tegulæ and patagia golden yellow, the former with black dorsal streak, the latter with black outer edge; dorsum of thorax black; pectus blackish with lateral whitish streaks; legs blackish, the fore and mid femora, tibiæ and tarsi and the hind femora streaked with white; abdomen black with dorsal white bars on three terminal segments and point on 4th, the ventral surface yellow, the base and extremity black, and the tip white. Fore wing black; a large diamond-shaped golden yellow patch extending from base along the median nervure to middle of wing and thence obliquely to termen above tornus, its lower edge straight from inner margin near base to termen; a large oblique conical postmedial patch, its inner edge oblique from before upper angle of cell to near termen below vein 3, its apex on vein 7; some slight pale streaks on and below costa and an oblique streak on terminal part of vein 2. Hind wing pale yellow, the tornal area blackish narrowing to a point on termen at vein 5; the underside with the terminal half of costa and a narrow terminal band expanding somewhat at vein 2 black.

♀. Abdomen without the white bars on terminal segments; fore wing browner with the yellow patches narrower and more wedge-shaped, all the veins with whitish streaks; hind wing with the terminal half brown, its inner edge excurved below costa and incurved below vein 3.

Hab. Br. Guiana, Orinoco, Maipures; Brazil, Upper Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild; Peru, Carabaya, La Union (*Ockenden*), St. Gaban, 1 ♂, 1 ♀. *Exp.*, ♂ 34, ♀ 44 millim.

1209. Idalus admirabilis, insert :—

Idalus affinis, Roths. Nov. Zool. xxiv. p. 476 (1917).

A variety with the basal and medial bands of fore wing confluent at inner margin as in Herrich-Schäffer's figure.

Brazil, St. Catherina, type † ♂ in Coll. Rothschild.

*1209 *a*. **Idalus albidior.** (Plate LXV. fig. 3.)

Idalus albidior, Roths. Nov. Zool. xxiv. p. 475 (1917).

♀. Head and thorax white, the tegulæ crimson at tips and the prothorax with pair of crimson streaks, the patagia with yellow fascia, their outer edge crimson towards tips, the metathorax with pair of brown points, the antennæ and palpi brown; abdomen with the three basal segments crimson with small white spots on the 2nd and 3rd segments, the other segments white with crimson lines at base of 4th and 5th; pectus, legs, and ventral surface of abdomen white, the fore tibiæ and the tarsi pale brown, some crimson on fore coxæ and below the shoulders. Fore wing white; an oblique violaceous patch defined by blackish marks from base of costa to submedian fold, emitting a fascia in the cell to origin of vein 2, some yellow beyond it in end of cell and in submedian interspace; a narrow oblique violaceous band defined at sides by blackish from costa beyond middle to inner margin, the discocellulars and veins traversing it white, very slightly displaced outwards below vein 3, then rather maculate; a minute black subterminal spot at discal fold. Hind wing pure white, the hair at base faintly tinged with crimson.

Hab. Venezuela, Esteban Valley, Las Quiguas (*Klages*), type † ♀ in Coll. Rothschild. *Exp.* 42 millim.

1210. **Idalus xanthia**, insert (syn.):—

Automolis luteola, Roths. Nov. Zool. xvi. p. 44, pl. 6. f. 9 (1909).

Paraguay, Sapucay (*Foster*), type † ♀ in Coll. Rothschild.

1211 del. *Idalus pichesensis* and rename **I. agasta.**

Idalus agastus, Dyar, Pr. U.S. Nat. Mus. xxxviii. p. 236 (1911).

1211 *a*. **Idalus agrica.** (Plate XLIII. fig. 6.)

Idalus agricus, Dyar, Pr. U.S. Nat. Mus. xxxviii. p. 236 (1911).

♂. Head and thorax white; tegulæ crimson at tips; patagia with yellow patch; dorsum of thorax with a few yellow and crimson hairs; abdomen crimson, the ventral surface white. Fore wing pale yellow; the costa white; the basal area with blue-grey streaks in the interspaces, short at costa, and a crimson streak above inner margin; a medial blue-grey band interrupted by white streaks on the veins and a white line on discocellulars, and defined on each side by white below vein 2, expanding on outer side at costa and below vein 3, a short crimson streak beyond it on vein 1; a small subterminal grey spot below vein 6. Hind wing white with a little crimson at base of inner area.

Hab. Mexico, Misantla (*Müller*), 1 ♂. *Exp.* 32 millim.

*1212 *a*. **Idalus flavoplaga.** (Plate XLIII. fig. 7.)

Idalus flavoplaga, Schaus, Pr. U.S. Nat. Mus. xxix. p. 208 (1906).

♂. Head, tegulæ, and patagia orange-yellow; palpi whitish in

front, brown behind; antennæ brown; frons and vertex of head with brown spots, back of head and tegulæ with paired spots; patagia edged with brown above, thorax brown; legs whitish streaked with brown; abdomen orange-yellow with fuscous patches at base and extremity, the anal tuft white. Fore wing brown suffused with purple, the veins streaked with yellowish white; an orange patch on inner margin from near base to near tornus, narrow towards base, expanding towards extremity; a triangular patch from costa beyond middle to vein 3. Hind wing orange-yellow; the underside with some fuscous scales below base of costa.

Hind wing with veins 6, 7 forking just before termen.

Hab. Fr. Guiana, St. Laurent Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 32 millim.

*1212 *b*. Idalus flavithorax.

Idalus flavithorax, Joicey, P. Z. S. 1917, p. 265, pl. 1. f. 4 (1918).

♂. Head, thorax, and abdomen yellow, the last with the three terminal segments grey-black; antennæ white with the serrations blackish; palpi and legs tinged with brown. Fore wing pale rufous, the veins, cell, and submedian fold streaked with white; a large conical yellow postmedial patch from costa to below vein 4 and a semicircular patch on terminal part of inner margin; cilia white. Hind wing white slightly tinged with yellow. Underside of fore wing very pale rufous with the yellow postmedial costal patch as above; hind wing white tinged with yellow.

Hab. Brazil, Rio Grande do Sul, type † ♂ in Coll. Joicey. *Exp.* 36 millim.

*1213 *a*. Idalus albicoxæ.

Idalus albicoxæ, Schaus, Pr. U.S. Nat. Mus. xxix. p. 208 (1906).

Antennæ of male with bristles and cilia; hind wing with the costal area greatly dilated, a patch of androconia in and beyond end of cell on upperside, vein 8 from middle of cell.

♂. Head yellow; palpi brown, crimson at sides towards base; antennæ brown, crimson at base and whitish at tips; tegulæ yellow with crimson spots at sides; thorax purple-brown with some yellow

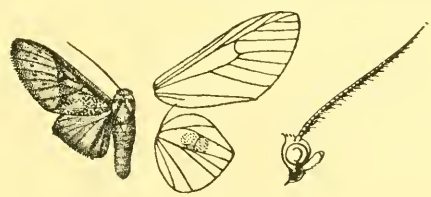

Fig. 6.—*Idalus albicoxæ*, ♂. ½.

on prothorax and crimson on patagia and dorsum; pectus and legs white, the fore tibiæ streaked with brown and the tarsi with crimson; abdomen crimson with two white points at base, the

extremity and ventral surface brownish white. Fore wing with the basal area purple-brown, extending on costa to beyond middle and on inner area to near tornus, its outer edge angled on vein 3, the base of costa white, a crimson streak below costa and some crimson at base of inner margin, the brown area tinged with crimson outwardly, the terminal area bright yellow, the costal edge brownish, a curved series of small dark spots between veins 8 and 3. Hind wing pale yellow, the inner area with some crimson hair.

Hab. Fr. Guiana, St. Laurent Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 34 millim.

*1214*a*. Aphyle affinis.

Aphyle affinis, Roths. Nov. Zool. xvi. p. 24, pl. 4. f. 12 (1909).

Head orange, white behind; palpi yellow at base, then blackish white in front and at tips; antennæ black with the basal joint white; thorax white with black patches on pro- and metathorax; fore and mid tibiæ fuscous above, the tarsi fuscous ringed with white; abdomen yellow, the ventral surface white. Fore wing white, the costa yellow; patches of pinkish yellow suffusion on medial area except towards costa and beyond lower angle of cell; a black point at base of costa; a narrow oblique black antemedial band from just below costa very slightly angled at median nervure; a very oblique black bar from below middle of costa to beyond lower angle of cell and a bar from below vein 3 to inner margin near tornus; a semicircular black band enclosing the apical area. Hind wing yellow with the costa white.

Hab. Brazil, Amazons, Fonte Boa (*Klages*); Peru, Carabaya, La Union, Rio Huacamayo (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.*, ♂ 30, ♀ 34 millim.

1214*b*. Aphyle cuneata.

Aphyle cuneata, Hmpsn. A. M. N. H. (7) xv. p. 439 (1905).

Antennæ of male serrate, the apical third simple; hind wing with veins 3, 5 from cell.

♂. Head and thorax white tinged in parts with buff; palpi black behind; tegulæ with blackish line near base, incomplete at middle,

Fig. 7.—*Aphyle cuneata*, ♂. ½.

a brown medial line, and blackish line at tips; patagia with two blackish bars; meso- and metathorax with paired fuscous spots;

abdomen vermilion, the anal tuft and ventral surface white. Fore wing white, the base, costal and terminal areas tinged with buff; the veins buff with dark streaks on veins 4, 5, 6, some vermilion on basal inner area; a blue-grey band at base from costa to vein 1; an oblique subbasal band from below costa to vein 1, followed by a black point in cell and brown line from cell to vein 1, then a black bar from cell to vein 1; a black streak on middle of inner margin narrowing towards base; a black point in middle of cell and short black streaks above and below base of vein 2; a black discoidal bar; a subterminal series of small black spots, excurved from below costa to termen below vein 4 and the spots above veins 4 and 5 connected with termen by short streaks, the series then incurved and represented by an oblique striga above vein 3, a spot above vein 2, one nearer termen below vein 2 and two conjoined spots at tornus. Hind wing hyaline white, the inner area suffused with vermilion, the cilia yellowish.

Hab. Br. Guiana, Potaro R. (*Roberts*), 1 ♂ type. *Exp.* 36 millim.

*1214 *c.* **Aphyle albipicta.** (Plate XLIII. fig. 8.)

Aphyle albipicta, Dogn. Ann. Soc. Ent. Belg. liii. p. 219 (1909).

♂. Head and thorax white; palpi brown and crimson behind; upper part of frons brown; antennæ brown, the basal joint white in front, crimson behind; tegulæ edged with crimson, the patagia with crimson upper edge and streak at middle; prothorax with paired crimson patches; abdomen crimson with slight white dorsal streak on basal segments; pectus, legs, and ventral surface of abdomen white, the fore and mid legs brown above. Fore wing brown; a white fascia with crimson streak on it at base of inner margin, expanding to cell at base, a small white spot beyond its extremity; a wedge-shaped white patch in middle of cell conjoined to an elliptical patch below the cell with curved crimson streak on it below median nervure with small spot beyond it and elliptical annulus below it, a white spot below the extremity of the patch above inner margin; a rounded white patch beyond the cell conjoined to a trilobate white patch beyond it with small spot below it; an irregular subapical white patch, the two veins on it streaked with crimson and with a small brown spot between them, its upper edge twice indented, its lower once; small white spots just before termen at veins 5, 4, 3, 2, the veins on them crimson, the two middle spots oblique; cilia with white marks in parts. Hind wing crimson, the basal costal area white; cilia tipped with white; the underside white, faintly tinged with crimson except the cell and basal costal area.

Hab. Fr. Guiana, St. Laurent Maroni, type † ♂ in Coll Dognin. *Exp.* 26 millim.

*1215 *a*, Aphyle intorta. (Plate XLIII. fig. 9.)

Aphyle intorta, Schaus, A. M. N. H. (8) vi. p. 402 (1910).

♀. Head, thorax, and abdomen purplish crimson. Fore wing purplish crimson, a large pale yellow wedge-shaped patch on terminal area from just below apex to tornus, its upper edge indented by the crimson area being angled on vein 6 and its inner edge defined by a darker line; faint slightly oblique dark antemedial and postmedial lines, a subterminal series of minute crimson points on the veins of yellow area. Hind wing paler crimson.

Hab. Costa Rica, Sixola R. (*Schaus*), type † ♀ in U.S. Nat. Mus. *Exp.* 44 millim.

*1215 *b*. Aphyle incisa.

Prumala incisa, Roths. Nov. Zool. xvi. p. 25, pl. 4. f. 17 (1909).

♀. Head and thorax brown tinged with crimson; pectus and legs white, the fore femora crimson above, and the tibiæ crimson and brown at base; abdomen crimson, the ventral surface white. Fore wing purple-brown tinged with crimson; the costal edge yellow; an indistinct dark antemedial line, bent outwards below costa, then oblique and slightly sinuous; a faint dark discoidal bar and oblique line from beyond lower angle of cell to inner margin; the terminal area yellow defined on inner side by crimson, narrow from below apex to vein 4, where it is strongly angled inwards, then forming a wedge-shaped patch with sinuous inner edge to tornus. Hind wing crimson, the cilia yellow; the underside paler with some whitish at base and through the cell to near termen.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♀ in Coll. Rothschild. *Exp.* 40 millim.

*1215 *c*. Aphyle conifera. (Plate XLIII. fig. 10.)

Aphyle conifera, Dogn. Hét. Nouv. Am. Sud, v. p. 9 (1912).

♀. Head, thorax, and abdomen grey-brown tinged with crimson; palpi white in front and crimson above; pectus, legs, ventral surface of abdomen, and anal tuft white, the fore and mid tarsi tinged with brown. Fore wing crimson suffused with brownish grey; the costal edge white with a bright crimson streak below it; an indistinct brownish antemedial line, obsolete towards costa and excurved above inner margin; a faint rather oblique and slightly sinuous brownish medial line; a conical semihyaline patch defined by brown and crimson on termen between veins 5 and 2, its apex arising below middle of vein 7, with two minute crimson points above vein 4 and one above vein 3; cilia crimson with yellow tips towards apex, crimson towards tornus. Hind wing pale crimson; cilia yellow; the underside white faintly tinged with crimson except on costal area.

Hab. Colombia, Medina (*Fassl*), type † ♀ in Coll. Dognin. *Exp.* 50 millim.

*1215 *d.* Aphyle steinbachi. (Plate XLIII. fig. 11.)

Neritos steinbachi, Roths. A. M. N. H. (8) iv. p. 229 (1909).

♀. Head and tegulæ orange-yellow; antennæ, thorax, and abdomen grey-brown. Fore wing pale grey-brown with darker brown streaks on the veins and in discal and submedian folds. Hind wing grey-brown.

Hab. Bolivia, Buenavista (*Steinbach*), type † ♀ in Coll. Rothschild. *Exp.* 30 millim.

Genus EPIMOLIS.

Type.

Epimolis, Dyar, Pr. U.S. Nat. Mus. xliv. p. 286 (1913) ..... *zatrephica*.

Proboscis aborted and small; palpi upturned to vertex of head; frons smooth; antennæ of female ciliated; tibiæ with the spurs short; abdomen dorsally clothed with rough hair at base. Fore wing with the apex rounded, the termen evenly curved; vein 3 from well before angle of cell; 5 near angle; 6 from upper angle; 7, 8, 9, 10 stalked, 10 from beyond 7; 11 from cell. Hind wing with vein 2 from before angle of cell; 3 and 5 stalked, 4 absent; 6, 7 coincident and 8 on a long stalk with them.

In key differs from *Aræomolis* in the hind wing having veins 6, 7 coincident, and from *Zærius* in the palpi reaching to vertex of head and the termen of fore wing not being angled.

*1215 *e.* Epimolis zatrephica.

Epimolis zatrephica, Dyar, Pr. U.S. Nat. Mus. xliv. p. 286 (1913).

♀. Head yellow above, crimson in front, the palpi yellow in front; tegulæ yellow, thorax purplish, the patagia yellow at base and with crimson streak above; fore and mid tibiæ and tarsi yellow with some crimson markings; hind legs white; abdomen crimson, the ventral surface white. Fore wing pink with a purplish tinge to middle of costa and termen above tornus; the costal area yellow

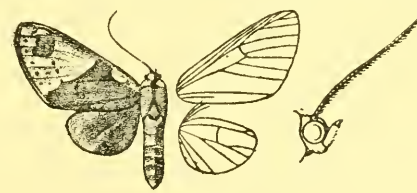

Fig. 8.—*Epimolis zatrephica*, ♀. ½.

narrowing to a streak at middle; a small yellow spot below middle of vein 1; apical area yellow; a curved pinkish patch shaded with grey and with the veins on it streaked with crimson and with yellow spot on its upper part from costa before apex to vein 5, with a series of slight grey spots in the interspaces from it to vein 2 and a subterminal series. Hind wing crimson, the apical part of costa and termen narrowly yellow with the crimson shading into it.

Hab. Mexico, Misantla (*Müller*). *Exp.* 40 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

1216 *a*. Phæomolis lepida.

Phæomolis lepida, Schaus, A. M. N. H. (8) ix. p. 38 (1912).

Antennæ of male bipectinate with short branches to apex; fore wing with elliptical brand on medial area above vein 1 on underside; hind wing with the costa lobed and the apex truncate from middle of costa to vein 2, an elliptical brand at end of cell on upperside; veins 3, 5 and 6, 7 stalked to near termen; female with veins 3, 5 stalked, 6, 7 coincident.

♂. Head yellow; palpi black and crimson above and black at tips; frons with black bar above; antennæ blackish, yellow tinged with crimson at base; thorax yellow suffused with crimson except in front, the patagia with lunulate brown patches and blackish tips; abdomen crimson with yellow spot at base and the tip yellow; pectus and legs yellow, the fore femora above brown, the tibia and tarsi at extremities with brown marks, ventral surface of abdomen white. Fore wing yellow; some crimson at base of inner margin; a blackish

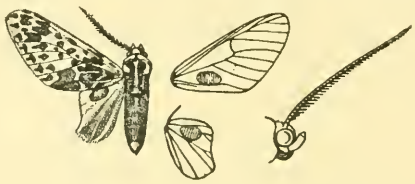

Fig. 9.—*Phæomolis lepida*, ♂. ½.

spot at base of cell, a subbasal spot below costa and oblique waved band from cell to inner margin edged with crimson; a large irregular blackish antemedial patch from just below costa to just above inner margin, edged with crimson, partly broken up by crimson streaks on the veins and with some crimson on it above vein 1; three obliquely placed small brown spots in and above end of cell and four beyond the cell; a bilobate blackish patch at tornus edged with crimson; a postmedial series of clavate brown spots with crimson streaks between them on costal half, the spot above vein 5 bidentate; a small spot below costa towards apex with a bidentate spot below it; a series of clavate spots before termen. Hind wing yellow suffused with crimson except on costal half and with a diffused brown patch at tornus; the underside yellow, the brand defined by crimson and the inner area tinged with crimson.

♀. Fore wing with the antemedial dark patch more extensive and confluent with the very large tornal patch; hind wing crimson with the costa and cilia at tips yellow.

Hab. Costa Rica, Juan Vinas (*Schaus*), 1 ♂, 2 ♀, Guapiles (*Schaus*), 1 ♀. *Exp.*, ♂ 38, ♀ 44 millim.

*1216 *b*. Phæomolis manora. (Plate XLIII. fig. 12.)

Idalus manora, Druce, A. M. N. H. (7) xvii. p. 408 (1906).

♂. Head and thorax bright yellow; palpi white, black above and at extremity of 2nd joint; a black line between base of

antennæ, which are black, yellow at base and white at extremity; patagia with black annulus enclosing an elongate very irregular space; pro-, meso-, and metathorax with small brownish annuli; pectus and legs white, the fore tibiæ and tarsi yellow, the former with black spots at middle and tips, all the tarsi black at extremity; abdomen reddish orange, the anal tuft and ventral surface white. Fore wing bright yellow; small elongate subbasal black annuli below costa and above vein 1 and a round annulus below the cell; an antemedial series of black-edged spots from below costa to inner margin, the spot above median nervure very narrow and elongate, the spot below the cell wedge-shaped, the spot above vein 1 with its inner extremity curved over above and the spot on inner margin bifid, a small spot beyond this series in the cell and two in submedian interspace; a spot in end of cell with elongate mark above it below costa; a spot above vein 6 and elongate spot below it, and points below veins 4 and 3; an obliquely curved postmedial series of spots, the spot above vein 5 lunulate and near termen and the spot above vein 1 confluent with one of the terminal series of small wedge-shaped spots; four minute striga-like spots below costa towards apex and a dark subapical lunule concave towards base. Hind wing yellow, the costal half white.

Hab. Peru, Carabaya (*Ockenden*), type † ♂ in Coll. Joicey. *Exp.* 42 millim.

*1216 *c*. Phæomolis mera. (Plate XLIII. fig. 13.)

Phæomolis mera, Schaus, A. M. N. H. (8) vi. p. 196 (1910).

♂. Head orange-yellow; palpi brown with white marks at extremities of 1st and 2nd joints; antennæ brown; thorax pale brown with white stripes on tegulæ and patagia and dorsal streak on tegulæ and thorax; pectus white; legs striped white and pale brown; abdomen brown with dorsal white stripe, the three terminal segments yellow, the ventral surface white. Fore wing pale brown with whitish streak below costa, diffused curved streak in submedian interspace, and slight streaks below vein 3 and above and below veins 2 and 1; elliptical hyaline patches between bases of veins 5 and 3; a terminal series of small white spots at the extremities of the veins. Hind wing pale brown, the costal area and area beyond the cell whitish, the patch of androconia ochreous; the underside whitish, the veins, costal area, and termen pale brown.

Fore wing of male with large glandular patch below middle of cell on underside; hind wing with the costa highly lobed, a glandular patch on upperside at extremity of subcostal nervure.

Hab. Costa Rica, Tuis (*Schaus*), type † ♂ in U.S. Nat. Mus. *Exp.* 52 millim.

*1216 *d*. Phæomolis brunnescens.

Automolis brunnescens, Roths. Nov. Zool. xvi. p. 45, pl. 6. f. 19 (1909).

♂. Head, tegulæ, thorax, and upper edge of patagia creamy white; palpi, spots at sides of frons, antennæ except basal joint,

shoulders and the rest of patagia red-brown; pectus and abdomen ochreous yellow; legs greyish brown, the fore legs darker. Fore wing red-brown with a small semihyaline whitish postmedial spot below vein 5. Hind wing ochreous yellow, the terminal area suffused with brown except at apex; the underside ochreous yellow, the costa and termen tinged with brown.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 42 millim.

Subsp. *unicolor*, Roths. Nov. Zool. xvi. p. 45, pl. 6. f. 10 (1909).

♂. Head and thorax uniform pale red-brown with a greyish tinge; fore wing pale greyish brown, with an obscure round darker spot beyond the cell between veins 6 and 3 and no postmedial whitish spot.

Hab. E. Bolivia, Buenavista (*Steinbach*), type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

*1216 *e*. Phæomolis similis. (Plate XLIII. fig. 14.)

Trichodesma similis, Roths. Nov. Zool. xix. p. 158 (1912).

♂. Head and thorax black-brown; palpi with the basal joint yellow; coxæ and femora at sides streaked with white; abdomen black-brown with sublateral white fasciæ. Fore wing black-brown with broad oblique yellow band from below costa beyond middle to vein 1 above tornus, its outer edge somewhat curved. Hind wing black-brown.

Hab. Brazil, Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

*1216 *f*. Phæomolis ochreogaster.

Automolis ochreogaster, Joicey, P. Z. S. 1917, p. 267, pl. 1. f. 8. (1918).

♀. Head, thorax, and abdomen white, the dorsum of thorax and abdomen except at base slightly tinged with ochreous; palpi tinged with brown; pectus and legs white. Fore wing uniform silvery white. Hind wing pure white, rather thinly scaled. Underside uniform silvery white.

Hab. Paraguay, Sapucay (*Foster*), type † ♀ in Coll. Joicey. *Exp.* 40 millim.

1217 *a*. Prumala tessellata. (Plate XLIII. fig. 15.)

Prumala tessellata, Schaus, A. M. N. H. (8) vi. p. 197 (1910).

♂. Head and thorax pale yellow-green, the tegulæ and patagia edged with black-brown; palpi, lower part of frons, and antennæ black-brown, the last white at tips; pectus ochreous, legs brown, the fore coxæ orange; abdomen black-brown with the extremity yellow, the ventral surface yellow with black-brown bands. Fore wing pale yellow-green; a black-brown patch at base of costa

extending to below the cell; an antemedial black-brown band, angled outwards on median nervure and ending above vein 1 below which there is a short streak, the costa beyond it black-brown to above end of cell, where it is conjoined to a large rounded black-brown patch with small green spot on it beyond upper angle of cell; two points beyond lower angle of cell; an oblique postmedial series of large wedge-shaped black-brown patches, formed by four conjoined patches from costa to above vein 4, two conjoined patches between veins 4 and 2 and a patch above inner margin; a quadrate black-brown spot at apex and subterminal series of striæ. Hind wing pale yellow, the inner area suffused with black-brown; a black-brown discoidal patch and subterminal series from apex to vein 2; cilia black-brown.

Hab. Costa Rica, Sitio (*Schaus*), 1 ♂, Cartago. *Exp.* 44 millim.

*1217 *b*. **Prumala subtessellata.** (Plate LXV. fig. 4.)

Prumala subtessellata, Roths. Nov. Zool. xxiii. p. 265 (1916).

♂. Head and thorax apple-green, the tegulæ with black-brown dorsal patch, the patagia with broad black-brown stripes; antennæ black, white at tips; sides of frons and palpi black-brown; abdomen black-brown with a yellow segmental line before extremity and the anal tuft yellow except at base; pectus yellowish white, the fore coxæ orange-yellow; legs grey-brown; ventral surface of abdomen banded with pale yellow except at extremity, the sides with red-brown bars and small sublateral black spots. Fore wing apple-green; a deep chocolate-brown patch at base of costa extending to below the cell; an oblique antemedial band from costa to median nervure with waved edges, a patch below the cell and streak below vein 1, the band connected by a streak on costa and on one side a streak from its lower extremity with a lunulate discoidal patch; small spots above bases of veins 6, 4, 3, 2; an oblique postmedial series of large elliptical spots in the interspaces, conjoined except at veins 4 and 2 and with small yellowish spot before it on costa; an apical spot and a series of small spots before termen; cilia whitish tinged with green. Hind wing dark brown, the costa yellowish white towards base and with small spot beyond middle. Underside of fore wing yellowish white, the markings as above; hind wing with the costal area to beyond middle and the cell yellowish white, the former giving off a postmedial patch to vein 5.

Hab. Venezuela, Esteban Valley, Las Quignas (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 42 millim.

*1217 *c*. **Prumala muscosa.** (Plate XLIII. fig. 16.)

Prumala muscosa, Schaus, A. M. N. H. (8) vi. p. 198 (1910).

♂. Head and thorax sap-green; palpi, sides of frons, and antennæ black; tegulæ black at base and dorsally; patagia edged with

black above; pectus ochreous yellow; legs black-brown, the femora streaked with whitish; abdomen black-brown, some hair at base, the anal tuft and ventral surface ochreous, sublateral series of black spots. Fore wing sap-green; a black spot at base of costa, short streak below base of cell and subbasal streak in cell; a streak on middle of costa and irregular spot in middle of cell; a spot in lower angle of cell and spot in and above upper angle; an oblique series of short dashes from above upper angle of cell to inner margin before middle; an obliquely curved postmedial series of wedge-shaped marks, the mark above inner margin more elongate; subterminal spots on costa and below vein 8 and a terminal series of oblong spots in the interspaces. Hind wing pale ochreous, the inner half suffused with fuscous, some fuscous on discocellulars, and a terminal series of oblong fuscous patches in the interspaces from apex to vein 2. Underside pale ochreous; fore wing with the costal area black to beyond middle, the markings obsolete on inner area; hind wing with some black on basal half of costa, a discoidal spot and subterminal spot below vein 2.

Hab. Costa Rica, Tuis (*Schaus*), type † ♂ in U.S. Nat. Mus. *Exp.* 34 millim.

*1217 *d.* **Prumala undervoodi.** (Plate XLIII. fig. 17.)

Diacrisia underwoodi, Roths. Nov. Zool. xvii. p. 120 (1910).
Prumala herbosa, Schaus, A. M. N. H. (8) vi. p. 197 (1910) ♂, nec var. ♂ & ♀.

♂. Head and thorax yellow-green, the upper edge of patagia brown; palpi and antennæ, tibiæ and tarsi brown; crimson streaks below shoulders; abdomen crimson, the extremity and ventral surface green. Fore wing yellow-green; the costal edge fulvous; a brown spot in middle of cell with oblique band from it to inner margin near base, expanding at vein 1 and enclosing a small spot, the spot and band connected by oblique streaks on veins 2 and 1 with an oblique medial bar between veins 2 and 1 and with the postmedial brown band which is oblique and emitting slight streaks on inner and outer sides on the veins from costa to vein 2, then expanding into an irregular patch bent outwards to inner margin near tornus; a small spot in upper extremity of cell and spot with striga below it beyond upper angle; a slight streak on extremity of median nervure and slight marks beyond lower angle of cell; a subterminal series of small spots. Hind wing pale green, the inner area tinged with crimson; a small subterminal brown spot below apex and patch from below vein 2 to tornus. Underside of both wings with the brown markings reduced.

♀. Fore wing with the brown markings reduced to obliquely placed antemedial spots in and below the cell, a small spot in upper extremity of cell and two beyond the cell, a postmedial series of small spots, oblique to vein 2 then curved outwards and forming a lunule to inner margin near tornus, a subterminal series of points

and small spot at apex. Hind wing with small subterminal brownish patch below vein 2 only.

Hab. Costa Rica, type† ♂ in Coll. Rothschild, El Sitio (*Schaus*), ♂, Juan Vinas (*Schaus*), ♀. *Exp.*, ♂ 44, ♀ 48 millim.

1217 *e*. **Prumala herbosa.** (Plate XLIII. figs. 18 ♂, 19 ♀.)

Prumala herbosa, Schaus, A. M. N. H. (8) vi. p. 197 (1910), var. ♂ & ♀; and A. M. N. H. (8) vii. p. 183 (1911).

♀. Head and thorax yellow-green; palpi, lower part of frons and antennæ black-brown, the last white at tips; crimson patches behind the eyes, some brown on shoulders and crimson below base of wings; tibiæ and tarsi brown; abdomen crimson, the extremity and ventral surface green. Fore wing yellow-green; the costal edge brown; a round brown spot in middle of cell and two slight marks in submedian interspace; a small brown spot in upper angle of cell and a few scales between lower angle of cell and vein 1; points beyond the cell above veins 6, 5, 3, 2; an oblique postmedial series of points from below costa ending in a small spot above vein 1; a small apical spot and subterminal series of points ending in a small spot at inner margin conjoined to the postmedial spot. Hind wing pale greenish, the inner area tinged with crimson; a faint brownish subterminal spot in submedian interspace.

♂. Fore wing with inwardly oblique brown line from the spot in cell to above vein 1 connected by oblique brown streaks from the spot and along vein 1, where the streak is forked basally, with two irregular medial spots between veins 2 and 1 and with the narrow postmedial band which is obliquely curved from below costa to vein 2 then expanding into an irregular patch bent outwards to inner margin near tornus, expanding into a small dentate mark at discal fold and with some purplish on it. Hind wing with slight subterminal brown mark below apex and patch below vein 2.

Hab. Costa Rica, Tuis (*Schaus*), 1 ♀, Juan Vinas (*Schaus*), 1 ♂, El Sitio. *Exp.* 54 millim.

1218. **Prumala lophocampoides**, insert:—

Subsp. *fulminans*, Roths. Nov. Zool. xvii. p. 9 (1910).
Prumala tolimensis, Roths. Nov. Zool. xxiii. p. 265 (1916).

♂. Fore wing brighter yellow with the markings darker, broader and more distinct and defined by bright scarlet.

♀. Fore wing with the markings darker, brighter and more distinct.

Hab. Colombia, Monte Tolima (*Fassl*), type † ♂ *tolimensis* in Coll. Rothschild; Venezuela, Merida, Caracas; Peru, Carabaya, S. Domingo, Aqualani (*Ockenden*), 2 ♂, R. Inambari, Limbani, La Oroya, Oconeque (*Ockenden*), 1 ♂. Type † ♂ ♀ in Coll. Rothschild.

The form described is *P. ipsea*, Druce.

Typical *P. lophocampoides* from S. Brazil has the postmedial maculate band of fore wing hardly stronger in the male than in the female, and with slight scarlet streaks at the veins only.

1218 *a*. **Prumala alinda.** (Plate XLIII. fig. 20.)

Prumala alinda, Dyar, Proc. Ent. Soc. Wash. xi. p. 20 (1909).

♂. Head yellow, the genæ crimson, the palpi crimson at sides, brownish in front; thorax yellow with a few crimson hairs, the patagia edged above by purple; legs with the tarsi crimson; abdomen yellow, dorsally suffused with crimson. Fore wing yellow; a purplish fascia on base of median nervure, expanding into a large irregularly quadrate antemedial patch extending into the cell and to above inner margin and connected with a broad oblique band from costa just before apex, where it expands, to inner margin where it expands to near tornus, its outer edge angled outwards below veins 7 and 6; a small round discoidal spot and two small spots just beyond the cell; a subterminal series of small spots in the interspaces; the costa and veins crimson on the purple areas. Hind wing semihyaline yellowish, tinged with crimson except on costal area; a faint purplish postmedial patch in submedian interspace showing through from underside.

Hab. Mexico, Mexico City (*Müller*), Zacualpan (*Müller*), 2 ♂. *Exp.* 54 millim.

1218 *b*. **Prumala palmeri.**

Prumala palmeri, Roths. Nov. Zool. xvii. p. 9, pl. 13. f. 8 (1910).

♂. Head, tegulæ, and base of patagia yellow; palpi, frons, and base of tegulæ scarlet; antennæ brown, whitish at tips; thorax scarlet with fuscous brown fasciæ on patagia and prothorax; pectus and fore legs yellow suffused with scarlet, the mid and hind legs white, the fore femora above and mid tibiæ at base fuscous; abdomen crimson, the ventral surface white. Fore wing yellow; a large purple-fuscous patch edged with scarlet on inner area extending from close to base to tornus and into middle of cell, its outer edge sinuous and emitting a spur above vein 2; some scarlet and yellow at base of inner margin and a postmedial spot on inner margin with small scarlet spot above it in submedian fold; small brown spots with some crimson on their edges in end of cell and beyond the cell above and below vein 6, and a scarlet point at lower angle of cell; a purple-fuscous lunulate subapical patch edged with scarlet from below costa to vein 5 followed by brown points below veins 5 and 4; a subterminal series of brown points and a terminal series of slight scarlet points. Hind wing pale yellow, the inner half faintly tinged with crimson.

Hab. W. Colombia, San Antonio (*Palmer*), 1 ♂. *Exp.* 44 millim. Type † in Coll. Rothschild.

*1219 *a*. Prumala ochrida. (Plate XLIII. fig. 21.)

Prumala ochrida, Schaus, Trans. Am. Ent. Soc. xli. p. 2 (1915).

♂. Head and thorax yellow tinged with rufous; antennæ brownish; abdomen yellowish suffused with crimson. Fore wing ochreous yellow, the veins streaked with red-brown, the costal area suffused with rufous; a subbasal crimson point in the cell and two on median nervure and some rufous on inner area; an elongate red-brown mark in middle of cell and a rather wedge-shaped rufous patch in end of cell; a large rufous patch on medial area from the cell to inner margin enclosing a small yellow spot below the cell, its outer edge joined by an oblique maculate line from costa beyond middle; an oblique red-brown band with sinuous edges from costa to inner margin before the subterminal series of small red spots in the interspaces between veins 7 and 2; cilia with a series of red-brown spots. Hind wing yellow, the inner area tinged with crimson except towards tornus.

Hab. S.E. Brazil, Joinville. *Exp.* 40 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

*1220 *a*. Prumala griseipennis.

Automolis griseipennis, Roths. Nov. Zool. xvi. p. 41, pl. 6. ff. 7, 8 (1909

♂. Head and thorax reddish brown; pectus black-brown with a blue gloss; fore tarsi at extremities and mid and hind tarsi except at base white; abdomen orange, the four terminal segments and sides black glossed with metallic blue, the ventral surface orange with the anal segment dark brown. Fore wing grey-brown, darker from base to the ill-defined obliquely curved whitish line from costa beyond middle to middle of inner margin. Hind wing greyish brown; the underside with the costal area and cell darker with a wedge-shaped orange patch in the cell.

♀. Abdomen dorsally scarlet instead of orange; fore wing more uniform greyish brown, with the line less distinct.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 40, ♀ 44 millim.

1220 *b*. Prumala ignipicta. (Plate XLIII. fig. 22.)

Prumala ignipicta, Hmpsn. A. M. N. H. (7) xi. p. 350 (1903).

♂. Antennæ bipectinate; hind wing with veins 6, 7 on a long stalk, 8 from near end of cell.

Head and thorax red-brown, the latter with some red hair at sides; palpi and legs brown; abdomen scarlet, the ventral surface yellow. Fore wing yellow-brown; a small yellow patch below base of costa suffused and edged with scarlet and with some dark spots on it; a yellow spot suffused with red on middle of inner margin; veins tinged with red. Hind wing pale yellow tinged with scarlet. Underside ochreous.

Hab. Brazil, Rio Janeiro, Tijuca (*S. R. Wagner*), 1 ♂ type. *Exp.* 36 millim

1220 *c*. Prumala suana.

Idalus suanus, Druce, A. M. N. H. (7) ix. p. 322 (1902).

Head and thorax bright yellow; palpi tinged with pink; frons and antennæ grey-brown; patagia with brown patch edged with crimson above; abdomen greyish, the base of dorsum bright yellow, then tinged with crimson. Fore wing bright yellow, the costal edge white; the markings whitish edged with purplish and crimson; a small subbasal spot below the cell, points in middle and end

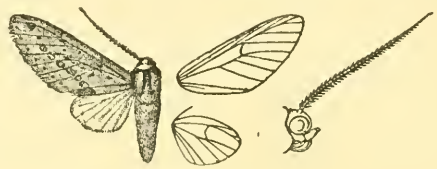

Fig. 10.—*Prumala suana*, ♂. ½.

of cell, an obliquely curved postmedial series from above vein 6 to below vein 2, an oblique series of small spots from a somewhat triangular patch on costa near apex to a conical patch on inner margin, a subterminal series of points from above vein 6 to below 2. Hind wing semi-hyaline white.

♀. Thorax and abdomen wholly yellow; fore wing with the spots smaller, hind wing creamy white.

Hab. Costa Rica, Juan Vinas (*Schaus*), 2 ♂, 2 ♀, Sitio (*Schaus*), 1 ♀; W. Colombia, San Antonio (*Palmer*), 1 ♂; Venezuela, Merida, type † in Coll. Joicey. *Exp.*, ♂ 40, ♀ 50 millim.

*1220 *d*. Prumala indistincta.

Prumala indistincta, Roths. Nov. Zool. xvi. p. 24, pl. 4. f. 14 (1909).

♀. Head and thorax yellow; palpi orange, black above; antennæ brown; pectus and legs whitish tinged with brown; abdomen dirty whitish yellow. Fore wing yellow, with series of small brown spots partly edged with orange; a spot in base of cell, an antemedial spot in the cell and double spot below it, a spot in upper extremity of cell, a series of spots from above vein 6 beyond the cell, incurved below vein 4, a curved postmedial series of spots, a spot on costa towards apex and a subterminal series of points. Hind wing pale yellow.

Hab. Panama, Chiriqui; Paraguay, Sapucay (*Foster*), type † ♀ in Coll. Rothschild. *Exp.* 46 millim.

*1220 *e*. Prumala sulphurea.

Prumala sulphurea, Joicey, A. M. N. H. (8) xviii. p. 54, pl. 14. f. 2 (1916).

♀. Head and thorax pale greenish yellow; antennæ grey-brown; palpi grey-brown, orange-yellow in front except at tips; pectus whitish tinged with pale red-brown; legs grey-brown; abdomen

white tinged with pale red-brown. Fore wing pale greenish yellow; a minute brown spot below the cell near base; a violaceous grey antemedial spot below the cell edged by dark brown scales and with pale crimson streak through middle; a similar spot in middle of cell but with slight crimson streaks also above and below it; a series of small dark brown annuli filled in with violaceous grey from above base of vein 6 to above vein 1, incurved below vein 4; an obliquely curved postmedial series of similar annuli, the mark at discal fold larger and with slight crimson streaks above and below it, the mark at inner margin large and extending to tornus with slight crimson streaks above and at middle; two obliquely placed dark brown spots from apex with a pale crimson streak between them; a subterminal series of minute brown annuli with violaceous grey centres from below costa to above vein 2. Hind wing white, the inner area tinged with pale red. Underside of fore wing creamy white, the costal area tinged with pale red-brown, a brown spot in middle of cell, a postmedial dark brown spot at discal fold, the two spots from apex as above, a pale red tinge at tornus.

Hab. Peru, Carabaya, Oconeque (*Ockenden*), type † ♀ in Coll. Joicey. *Exp.* 50 millim.

*1221 *a*. **Prumala flavoplagiata.**

Automolis flavoplagiata, Roths. Nov. Zool. xviii. p. 157 (1911), & xix. pl. 5. f. 27.

♀. Head and thorax orange-yellow; palpi white streaked with black; antennæ black, the shaft white above; frons with small black spot; back of head with pair of black spots; tegulæ with small black spots; patagia edged with brown and with small brown spot near extremity; legs streaked dark brown and white; abdomen orange-yellow, the three terminal segments blue-black; lateral brown stripes except towards base. Fore wing reddish brown, the veins, cell, and submedian fold with whitish streaks; the medial part of inner margin with yellow fascia narrowing to points at extremities; an oblique conical yellow patch from costa beyond middle to below vein 5, its edges slightly irregular. Hind wing reddish brown with slight pale streaks on the veins; the base yellow with irregular outer edge; the underside with the yellow in upper part of cell extending to its extremity, the costal edge whitish towards base.

Hab. Colombia, San Antonio (*Fassl*), type † ♀ in Coll. Rothschild. *Exp.* 36 millim.

*1222 *a*. **Prumala nigranalis.** (Plate XLIII. fig. 23.)

Prumala nigranalis, Schaus, Trans. Am. Ent. Soc. xli. p. 2 (1915).

♂. Head, thorax, and abdomen yellow tinged with red-brown, the last with the two terminal segments dorsally suffused with black. Fore wing uniform red-brown tinged with greyish. Hind wing pale orange-yellow.

Hab. S.E. Brazil. *Exp.* 36 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

*1224 *a*. **Prumala pyrostrota**. (Plate XLIII. fig. 24.)

Prumala pyrostrota, Dognin, Ann. Soc. Ent. Belg. lii. p. 153 (1908).

♀. Head red-brown, the vertex crimson; tegulæ silvery white tipped with red-brown; thorax red-brown mixed with crimson; pectus and legs white, the fore tibiæ and the base of mid tibiæ red-brown; abdomen crimson, the ventral surface white. Fore wing grey-brown extending on costa to beyond middle and on inner area to tornus, the apical third of wing yellow, the veins crimson; an ill-defined antemedial crimson band from below costa to inner margin, where it is diffused to base; a medial band of yellow spots defined by diffused crimson from below costa to inner margin; an incurved postmedial line from vein 3 to inner margin; a double curved subterminal series of small grey-brown spots from costa to vein 4. Hind wing crimson with the costa yellow; the underside yellow tinged with crimson.

Hab. Fr. Guiana, St. Laurent Maroni, type † ♀ in Coll. Dognin. *Exp.* 34 millim.

1225. **Prumala fogra**. (Plate XLII. fig. 18.)

1226. del. *Noctua ilus*, the species will stand as **Prumala optima**, Butl.

*1226 *a*. **Prumala hieroglyphica**. (Plate XLIII. fig. 25.)

Prumala hieroglyphica, Schaus, Pr. U.S. Nat. Mus. xxix. p. 209 (1906).

♀. Head and thorax yellow irrorated with scarlet; palpi with the 2nd and 3rd joints brown in front at extremity, lower part of frons and antennæ brown; tegulæ at middle and patagia in front edged with brown, the mesothorax with brown bar, the metathorax with brown triangle; fore femora and the tibiæ and tarsi banded with brown; abdomen ochreous dorsally suffused with scarlet. Fore wing yellow thickly irrorated with scarlet forming obscure annulations; a purple-brown fascia from base of costa to middle of inner margin, where it joins the terminal band; an oblique brown striga from costa near base; the medial area reticulate with fine brown lines forming an annulus below costa before middle and two just beyond middle and an X-shaped mark in and below the cell; small obliquely placed postmedial brown annuli on veins 6 and 5; postmedial line minutely waved, oblique from costa to vein 5, where it is connected by a fascia with the terminal band, then inwardly oblique, obsolete below vein 2; a curved, waved, subterminal line. Hind wing pale scarlet.

Hab. Fr. Guiana, St. Laurent Maroni, type † ♀ in U.S. Nat. Mus. *Exp.* 40 millim.

*1226 *b*. Prumala intensa.

Prumala intensa, Roths. Nov. Zool. xvi. p. 51, pl. 4. f. 19 (1909).

♂. Head and thorax yellow; palpi suffused with crimson and banded with red-brown; frons with red-brown band above; antennæ red-brown, the basal joint yellow and crimson; tegulæ with some crimson at base and red-brown tips; patagia with crimson annulus and edged with crimson; vertex of thorax with crimson reticulations and red-brown V-shaped mark on metathorax; pectus yellow, the legs banded crimson and brown; abdomen crimson, the ventral surface yellow. Fore wing yellow, the veins and short streaks and irrorated patches in interspaces crimson; an oblique red-brown fascia from base of costa to tornus; a subbasal bar from costa to the fascia, an oblique striga beyond it from costa to fascia, and a striga rather further from base from the cell to the fascia; antemedial line red-brown, angled outwards below costa, then oblique and sinuous, with a silvery white spot before it below the cell and another beyond it above inner margin; a red-brown annulus from middle of costa to median nervure, connected with the antemedial line, and giving off an oblique sinuous line to inner margin and striga to vein 2, a silvery white spot beyond the line below submedian fold; a discoidal bar connected with the annulus; postmedial line slightly excurved below costa, angled inwards at discal fold to the discoidal bar, oblique and slightly sinuous below vein 4; a subterminal brown band from costa to vein 5, expanding at costa and vein 5 and giving off at the latter point from its inner edge an oblique line to vein 2 just beyond the postmedial line; a series of brown lunules just before termen, connected with termen by streaks in the interspaces and a spot on termen at vein 5; cilia red-brown. Hind wing yellowish white tinged with crimson. Underside of fore wing, except apical area, and costa and inner margin of hind wing suffused with crimson.

♀. Fore wing with the brown fascia above inner margin expanding into a patch to vein 2 beyond middle and the curved band on apical area broader.

Hab. Fr. Guiana, St. Laurent Maroni in Coll. Dognin; Brazil, Amazons, Fonte Boa (*Klages*), type † ♀ in Coll. Rothschild. *Exp.* 32 millim.

1226 *c*. Prumala similis.

Prumala similis, Roths. Nov. Zool. xvi. p. 268 (1909), & xviii. pl. 5. f. 8.

♂. Head and thorax red-brown, the vertex of head white with scarlet annulus and streak behind it; palpi yellow and scarlet with brown spots on 2nd and 3rd joints; antennæ yellow and scarlet at base; tegulæ and patagia with white patches with scarlet annuli on them, the dorsum of thorax with confluent white patches marked with scarlet; pectus yellow; legs scarlet banded with brown;

abdomen crimson, the ventral surface yellow. Fore wing red-brown with yellowish white markings with scarlet patches on them, the median nervure and veins beyond the cell scarlet; a fascia on base of inner margin followed by a spot, a point at base of costa followed by a subbasal patch on costa and small spot below the cell, an antemedial patch from costa to below the cell, the medial area with maculate band from costa to above vein 1, followed by a rounded patch in and above cell, an elongate mark below costa above end of cell, point in upper angle of cell and elongate mark in lower angle and an obliquely curved maculate band from beyond upper angle of cell to above vein 1, an obliquely curved postmedial maculate band from costa to vein 2 with red-brown points on it at veins 8, 6, 5, a subterminal maculate band from below costa to below vein 6 and between veins 5 and 1, a terminal maculate band from below apex to below vein 6 and small subterminal spots from vein 5 to below vein 2. Hind wing yellow, the veins, termen, and inner area tinged with crimson; the underside with the costal area and inner margin crimson.

Hab. Fr. Guiana, St. Laurent Maroni, 1 ♂; Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild, Codajas. *Exp.* 32 millim.

*1226 *d.* Prumala occendeni.

Prumala ockendeni, Roths. Nov. Zool. xvi. p. 268 (1909), & xviii. pl. 5. f. 6.

Head and thorax red-brown, the vertex of head yellowish white with scarlet annulus on it and streak behind it; palpi yellow and scarlet with brown bands on 2nd and 3rd joints; antennæ yellow and scarlet at base and with whitish tips; tegulæ and patagia with yellowish white patches with scarlet annuli on them, the pro- and mesothorax with paired yellowish white and scarlet patches, the metathorax with one patch; pectus yellow; legs yellow banded with scarlet and brown; abdomen crimson, the extremity and ventral surface yellow, lateral and sublateral series of small brown spots. Fore wing red-brown with yellowish white markings with scarlet patches on them, the median nervure and veins beyond the cell scarlet; a subbasal patch on costa and fascia on base of inner margin, an antemedial patch from costa to median nervure, patch below median nervure rather further from base, and patch on inner margin, minute medial points below costa and subcostal nervure and patch on median nervure, a patch in cell towards extremity conjoined to a spot below costa, minute spots in, above and beyond upper angle of cell and a spot in lower angle, an oblique band of patches from just beyond lower angle of cell to above middle of vein 1, an obliquely curved postmedial series of patches from costa to vein 3 with red-brown points on veins 6 and 5, with another series of patches beyond it from costa to below vein 6 and between veins 5 and 1, some minute spots on costa towards apex and

subterminal patches on veins 7, 6 and from vein 5 to below 2. Hind wing yellowish white, the veins, termen, and inner area faintly tinged with crimson.

Hab. Peru, R. Inambari, La Oroya (*Ockenden*), type † ♂, ♀ in Coll. Rothschild, Carabaya, R. Huacamayo, La Union, Tinguri, S. Domingo. *Exp.*, ♂ 38, ♀ 42 millim.

*1226 *e*. Prumala affinis.

Prumala affinis, Roths. Nov. Zool. xvi. p. 268 (1909), & xviii. pl. 5. f. 7.

♂. Head and thorax red-brown, the vertex of head yellowish with scarlet annulus and streak behind it; palpi yellow and scarlet with brown spots on 2nd and 3rd joints; antennæ yellow and scarlet at base and whitish at tips; tegulæ and patagia with yellowish white patches with scarlet annuli on them, the pro- and mesothorax with paired yellowish white and scarlet patches and the metathorax with one patch; pectus yellow; legs yellow banded with scarlet and brown; abdomen crimson, the anal tuft and ventral surface yellow, sublateral series of brownish spots. Fore wing red-brown with yellowish white markings with crimson patches on them, the median nervure and veins beyond the cell scarlet; a fascia on base of inner margin and subbasal patch on costa, antemedial patches from costa to median nervure and on inner margin, a minute streak in middle of cell followed by confluent patches on costa and in cell and points in and beyond upper angle of cell, an irregular patch in and below the cell at origin of vein 2, confluent with a bar beyond it from median nervure to below submedian fold and followed by spots in and below end of cell confluent with an irregular band from just beyond lower angle to below submedian fold, a postmedial band of confluent patches from costa to below vein 2 with red-brown points on veins 6 and 5, followed by another series of patches from below costa to below vein 6 and between veins 5 and 2, some spots on costa towards apex, subterminal spots below apex, on veins 7, 6 and 4, 3, and spots on the cilia from apex to vein 4. Hind wing pale crimson, the cilia yellow.

Hab. Br. Guiana, Potaro; Brazil, Up. Amazons, Fonte Boa; Peru, Carabaya, S. Domingo (*Ockenden*), type † ♂ in Coll. Rothschild, Marcapeta, Caradoc, R. Huacamayo, La Union, R. Inambari, La Oroya. *Exp.* 36 millim.

*1227 *a*. Premolis rhyssa. (Plate XLIII. fig. 26.)

Idalus rhyssa, Druce, A. M. N. H. (7) xvii. p. 407 (1906).

♂. Head, tegulæ, and patagia deep crimson red, the tegulæ and patagia edged with brown; thorax fuscous brown, red in front; palpi white in front except at tips; pectus and legs white, the fore femora crimson above, the tibiæ brown, white at tips; abdomen

crimson suffused with brown except at base and with darker segmental lines, the ventral surface white. Fore wing with the basal half crimson red; the costal area fuscous brown except at base; the rest of wing semihyaline white with a few brown points on veins 6 and 4; an inwardly oblique greyish antemedial line from below costa to inner margin defined on each side by fuscous brown suffusion; a slight brown bar with white centre in end of cell and a trifid white spot defined by dark brown below origin of vein 2 with oblique dark line from it to lower angle of cell and two oblique lines from it to inner margin; the dark costal area emitting a bar on termen to vein 6. Hind wing semihyaline white, the inner area tinged with crimson.

Hind wing with vein 8 from before angle of cell.

Hab. Peru, La Oroya (*Ockenden*), type † in Coll. Joicey. *Exp.* 44 millim.

*1227 *b*. Premolis ridenda. (Plate XLIII. fig. 27.)

Idalus ridenda, Dogn. Hét. Nouv. Am. Sud. ii. p. 13 (1911).

♂. Head and thorax crimson-red, the tegulæ at sides and patagia suffused with grey-brown; palpi white in front towards base, brown at tips; antennæ brown except the shaft towards base; pectus and legs pure white, the fore femora above and base of tibiæ crimson red, the tarsi black at tips; abdomen pale crimson, the terminal half suffused with brown, the ventral surface pure white, the extremity brown-red. Fore wing with the basal half crimson-red, the terminal half semihyaline white with the costal area chocolate-brown extending on termen to below vein 6, the outer edge of the red area incurved and slightly sinuous, the white area with two red points on vein 6 and one on vein 4; an oblique greyish antemedial line from below costa to inner margin, defined on outer side by brown; slight whitish spots in lower end of cell and middle of submedian fold. Hind wing semihyaline white with some diffused pale crimson along vein 1 to beyond middle and a slight tinge at lower extremity of cell. Underside of fore wing with the cell and area just below and beyond it crimson red, the costal area brown.

Hab. Fr. Guiana, Nouveau Chantier (*Le Moult*), type † ♂ in Coll. Dognin. *Exp.* 34 millim.

*1227 *c*. Premolis flavithorax.

Demolis flavithorax, Roths. Nov. Zool. xvi. p. 269, (1909), & xviii. pl. 5. f. 9.

Antennæ of male minutely serrate and fasciculate; hind wing with the costa strongly lobed with large patch of androconia below it on upper side, 8 from middle of cell and strongly curved.

♂. Head and thorax pale yellow; palpi crimson, black behind and brown towards tips; tegulæ with crimson spots on outer edge, patagia with the outer edge crimson, some crimson scales on metathorax; pectus and legs white, some crimson below the wings,

the fore tarsi crimson ; abdomen crimson, the extremity and ventral surface white. Fore wing with the basal half whitish irrorated with red-brown and suffused with red-brown on costal area, its outer edge defined by crimson extending on costa to well beyond middle and on inner margin to near tornus, sinuous ; the basal

Fig. 11.—*Premolis flavithorax*, ♂. ½.

half of costal edge pure white, a crimson streak below costa and some crimson at base of inner margin ; the terminal half yellow with an obliquely curved postmedial series of four small red-brown spots between veins 7 and 3. Hind wing yellowish white, the inner area slightly tinged with crimson. Underside white ; fore wing with crimson streak in the cell, brown discoidal spot and the costal area brown towards apex.

Hab. Brazil, Amazons, Teffé, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 34 millim.

*1227 *d*. Premolis amaryllis.

Premolis amaryllis, Schaus, Pr. U.S. Nat. Mus. xxix. p. 210 (1906).

♂. Antennæ with bristles and cilia ; hind wing with vein 8 from middle of cell.

Head and thorax mustard yellow sparsely irrorated with scarlet ; palpi and frons tinged with scarlet ; antennæ pale scarlet ; legs tinged with scarlet ; abdomen orange-yellow. Fore wing mustard yellow, the costal area red-brown ; a straight red-brown

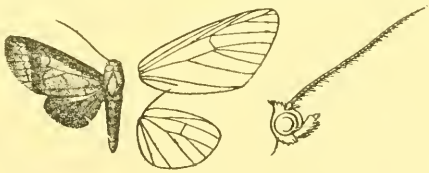

Fig. 12.—*Premolis amaryllis*, ♂. ½.

band from costa beyond middle to tornus ; traces of irregularly waved fine scarlet subbasal, antemedial, medial, postmedial and subterminal lines, the last ending on termen just above tornus and with faint band beyond it from apex to vein 3. Hind wing yellow suffused with crimson.

Hab. Fr. Guiana, St, Jean Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 32 millim.

For **Zatrephes** Hmpsn. (nec Hübn.) read

	Type.
Azatrephes, Hmpsn. A. M. N. H. (7) xv. p. 430 (1905)	*paradisea*.

and trans. from Vol. I. p. 474.

In key differs from *Pseudalus* in the palpi being upturned and the hind wing having vein 8 absent.

1227 *e*. Azatrephes paradisea.

1227 *f*. Azatrephes discalis.

Halesidota discalis, Wlk. vii. 1706 (1856); Roths. Nov. Zool. xvi. p. 33, pl. 5. f. 14.

Head and thorax silvery white; palpi crimson, white in front; frons red-brown; antennæ pale crimson with some black on shaft above towards base; tegulæ and patagia at base edged with red-brown; pro- and metathorax with red-brown patches; fore femora crimson above, the tibiæ streaked with crimson at sides, the tarsi tinged with crimson and all the tarsi with blackish rings; abdomen white dorsally tinged with crimson and with crimson spot at base. Fore wing silvery white; the costal edge dark brown and crimson; a subbasal brown and crimson line from costa to vein 1, slightly angled outwards on median nervure; antemedial line angled outwards at median nervure and vein 1; medial line chiefly crimson, angled outwards at subcostal and median nervures, incurved in cell, oblique and waved below the cell; an oblique brown fascia from middle of costa to termen at submedian fold, a large silvery patch edged with brown and with brown points on the veins beyond it from below costa to vein 2, its outer edge excurved and waved; postmedial line represented by a brown mark at costa and line from the fascia to inner margin angled inwards at vein 1; subterminal line from costa to the silvery patch, then slight, excurved and waved to vein 4 and below the patch angled inwards on vein 1; the veins of terminal area streaked with crimson and brown; a brown terminal line. Hind wing semihyaline white, the termen tinged with crimson.

Hab. Fr. Guiana, St. Jean Maroni, 1 ♀; Brazil, Amazons, type † in Mus. Oxon. *Exp.* 36 millim.

1227 *g*. Azatrephes argyrotis. (Plate XLV. fig. 1.)

Azatrephes argyrotis, Hmpsn. Nov. Zool. xxiii. p. 230 (1916).

Head, thorax, and abdomen silvery white, the palpi, upper part of frons, antennæ, except basal joint, back of head, tips of tegulæ, outer edge of patagia, and a patch on metathorax pale brownish red; fore legs tinged with red, the tibiæ and tarsi banded with red-brown. Fore wing silvery white, the basal and inner areas striated with silver and pale brownish red; the costa red-brown, expanding into two small triangular marks on basal area; an oblique red-

brown fascia from costa before middle, where it expands into a triangular patch, to termen at submedian fold, a large semihyaline patch beyond it extending from below the costa to vein 2 and to the subterminal line with a double postmedial series of red-brown points on the veins; subterminal line red-brown, curved and waved, ending at the oblique fascia; the veins of terminal area slightly streaked with red-brown; a red-brown bar before the termen between veins 5 and 4; cilia red-brown, whitish at tips. Hind wing silvery white. Underside silvery white, except the semihyaline patch of fore wing.

Hab. PERU, Yahuarmayo, 1 ♂, 1 ♀ type. *Exp.*, ♂ 32, ♀ 38 millim.

*1227 *h*. Azatrephes fuliginosa.

Azatrephes fuliginosa, Roths. Nov. Zool. xvi. p. 33, pl. 5. ff. 8–12 (1909).

Head and thorax red-brown, mixed with some metallic gold, the tegulæ silvery white; palpi yellow tinged with scarlet behind; pectus and legs white, the fore legs scarlet on inner side with the base of tibiæ fuscous brown; abdomen brown with dorsal series of yellowish spots, the crest at base silvery white, the ventral surface white. Fore wing red-brown; an oblique antemedial band composed of conjoined silvery spots defined by scarlet from below costa to inner margin, with irregular edges; a silvery streak edged with scarlet below costa above end of cell with minute spot beyond it; a large postmedial semihyaline silvery patch with irregular outer edge from vein 7 to below vein 3, the veins on it with brown points, a series of small silvery spots edged with scarlet and brown beyond it from below costa to vein 2, where they join a series of small silvery streaked spots edged with scarlet just before termen. Hind wing dark brown, the costal area whitish.

Ab. 1. Fore wing with the postmedial patch obsolete and replaced by brown, the antemedial band reduced, and the spots with less silver.

Ab. 2. Similar but fore wing with more silver on the spots; hind wing with the costal area yellow and scarlet emitting a subterminal bar to vein 2, a whitish streak tinged with scarlet on inner area.

Ab. 3. Similar to the typical form but the frons white and the hind wing as in ab. 2.

Ab. 4. Similar to the typical form but the thorax and abdomen white with slight brown markings; fore wing with the basal half white with slight scarlet markings and conjoined to the postmedial patch, the terminal area with wedge-shaped yellow and crimson spots from below costa to vein 5 and a silvery and crimson patch at tornus; hind wing yellow with brown fascia below vein 2 on terminal half, the cilia brown at base.

Hab. BRAZIL, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 26 millim.

Genus ZATREPHES.

Type.

Zatrephes, Hübn. Verz. p. 171 (1827) ..... *nitida*.

Proboscis well developed; palpi upturned to near vertex of head and rather thickly scaled; antennæ of male bipectinate with moderate branches, of female with shorter branches; tibiæ fringed with hair, the tarsal joints with slight tufts of hair. Fore wing with veins 3, 4 from angle of cell, or 3 from just before angle; 5 from above angle; 6 from upper angle; 7, 8, 9, 10 stalked, 7 from beyond 10; 11 from cell. Hind wing with vein 2 from towards angle of cell; 3, 5 from angle, 4 coincident with 5 or abnormally given off just before termen; 6, 7 coincident or forking near termen; 8 arising free then anastomosing with cell.

In key differs from *Automolis* in the hind wing having vein 8 anastomosing with the cell before middle.

CT. I. Fore wing with the termen produced to an angle at vein 5, then excised.

*1227 *i*. Zatrephes atrata.

Zatrephes atrata, Roths. Nov. Zool. xvii. p. 187, pl. 14. f. 8 (1910).

♂. Head, thorax, and abdomen greyish brown; palpi in front, pectus and base of legs pale yellow; ventral surface of abdomen yellowish white. Fore wing blackish brown, the basal and inner areas somewhat paler; traces of antemedial and medial dark lines; a hyaline patch beyond the cell between veins 6 and 3, attenuate above and with its outer edge produced to a point below vein 5. Hind wing uniform dark brown; the underside grey-brown.

Hab. Br. Guiana, R. Demerara, Christianberg, type † ♂ in Coll. Rothschild. *Exp.* 38 millim.

*1227 *j*. Zatrephes miniata.

Zatrephes miniata, Roths. Nov. Zool. xvi. p. 32, pl. 5. f. 6 (1909).

♂. Head and thorax greyish brown suffused with red; palpi pale yellow in front, crimson behind; antennæ dark brown; pectus and legs ochreous white, the fore tibiæ fringed with crimson hair on outer side; abdomen dark brown, the ventral surface white. Fore wing red-brown suffused with fiery red, the costa and veins brown; oblique antemedial and medial brown lines from below costa to inner margin, the latter with small brown spot before it in upper part of cell; a patch of brown suffusion beyond the cell with a tridentate hyaline patch on it between veins 6 and 3; the terminal area with patches of slight reddish yellow irroration from costa to vein 4 and a minute mark below vein 3. Hind wing dark reddish brown, the cilia whitish from vein 2 to tornus; the underside whitish tinged with brown.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

*1227 *k*. Zatrephes cardytera. (Plate XLIII. fig. 28.)

Zatrephes cardytera, Dyar, Zoologica N.Y. i. p. 126, pl. 2. f. 41, no. 2 (1910).

♂. Head and thorax clay-white slightly irrorated with red-brown; abdomen clay-white with a dull red patch at middle of dorsum. Fore wing clay-white slightly irrorated with red towards base and with olive-brown towards termen; a faint almost medial olive shade with spot at inner margin, and an oblique postmedial mark from costa; elongate hyaline spots beyond the cell above veins 3 and 4, a shorter spot above 5, and spot beyond it above vein 6 with point above 7, all defined by olivaceous; cilia white between veins 4 and 2. Hind wing ochreous suffused with crimson, the costal area clay-white. Underside clay-white.

Hab. Br. Guiana, Hoorie (*Beebe*). *Exp.* 36 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

*1227 *l*. Zatrephes gigantea.

Zatrephes gigantea, Roths. Nov. Zool. xvi. p. 32, pl. 5. f. 2 (1909).

♀. Head and thorax pale yellow irrorated with a few crimson-red scales, the dorsum of thorax with slight red-brown streak; palpi crimson-red behind; antennæ red-brown; fore tibiæ irrorated with red-brown, the tarsi red-brown at extremities; abdomen pale yellow dorsally tinged with red-brown. Fore wing ochreous yellow sparsely irrorated with crimson-red to the postmedial line, the terminal area slightly striated with red-brown; the costal edge red-brown; a faint oblique slightly sinuous antemedial line from subcostal nervure to inner margin and similar postmedial line from vein 4 to inner margin; a diffused patch of dark brown striation before the oblique series of irregular hyaline spots edged with dark brown between veins 8 and 3, the upper spot small, the spot in discal fold bifid, the spot below vein 5 conical, and the spot below vein 4 lunulate; cilia red-brown with small white spots at the veins from apex to vein 3. Hind wing yellow tinged with pale crimson; the underside yellowish white.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♀ in Coll. Rothschild. *Exp.* 62 millim.

*1227 *m*. Zatrephes griseorufa.

Zatrephes griseorufa, Roths. Nov. Zool. xvi. p. 30, pl. 4. f. 37 (1909).

♂. Head and thorax pale ochreous irrorated with brown and some crimson, a brown dorsal streak on thorax; palpi dark brown behind; pectus and legs white, the fore tibiæ irrorated with brown and crimson; abdomen pale crimson, the ventral surface white. Fore wing greyish ochreous irrorated with deep crimson-brown and the terminal area striated with brown; the costal edge

white except towards base and apex; an oblique brown antemedial line bent inwards to costa; an oblique brown medial line dilated into a bar at costa and slightly incurved at vein 2; a postmedial hyaline spot defined by blackish above vein 6 and irregular patch between veins 6 and 3, its edges waved and its upper extremity narrow and bent outwards; cilia dark brown with white points, white at tips between veins 4 and 2. Hind wing pale yellow tinged with crimson, the costa white, the termen and cilia tinged with brown towards apex; the underside white, the inner area tinged with crimson.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 42 millim.

*1227 *n.* Zatrephes foliacea.

Zatrephes foliacea, Roths. Nov. Zool. xvi. p. 31, pl. 4. ff. 41–43 (1909).

♂. Head and thorax white tinged with brown; palpi deep red, yellow in front; frons yellow irrorated with red; pectus and legs white, the fore tibiæ red-brown, the mid and hind tarsi with red-brown points at base and near extremity; abdomen white, dorsally suffused with pale brown. Fore wing brownish white, the basal area slightly irrorated with red, the terminal area striated with brown, the medial area suffused with brown and defined by the slight oblique brown antemedial and medial lines, the latter defined on outer side by whitish; a postmedial hyaline spot above vein 6 and trifid patch between veins 6 and 3, defined by deep red and with some reddish suffusion beyond the patch and blackish above and below vein 5; cilia dark brown, with white points towards apex, red at base and with white tips between veins 4 and 2. Hind wing yellowish white, the termen and cilia red-brown except towards tornus; the underside white.

♀. Fore wing with the medial area not suffused with brown, the postmedial hyaline patch more irregular, its upper and lower parts narrow, without blackish suffusion above and below vein 5.

Ab. 1 ♀. Fore wing with the medial and terminal areas suffused with red-brown except at costa and with dark suffusion beyond the hyaline patch which does not extend to below vein 4, a small spot above vein 7.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ ♀ in Coll. Rothschild. *Exp.*, ♂ 31, ♀ 44 millim.

*1227 *o.* Zatrephes bilineata.

Zatrephes bilineata, Roths. Nov. Zool. xvi. p. 31, pl. 4. f. 39 (1909).
Zatrephes bilineata rufobrunnea, Roths. Nov. Zool. xvi. p. 31, pl. 4. f. 40 (1909).

♂. Head and thorax whitish mixed with pale brown and some crimson; palpi white, pale crimson behind; pectus and legs white, the fore tibiæ brown; abdomen white dorsally suffused with pale

brown and crimson. Fore wing whitish tinged with brown and irrorated with brown and crimson; oblique brown antemedial and medial lines, the latter defined on outer side by whitish; small postmedial hyaline spots above and below vein 7 and a trifid band between veins 6 and 3, defined by dark brown; cilia brown, white at tips below apex and between veins 4 and 2. Hind wing white tinged with pale crimson except on costal area; the underside white.

Ab. 1. *rufobrunnea*. Head, thorax, and fore wing more strongly tinged with red-brown, the last with the medial line slightly incurved. Up. Amazons.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ *rufobrunnea* in Coll. Rothschild. Peru, Carabaya, Rio Huacamayo, La Union (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 36 millim.

*1227 *p*. Zatrephes binotata.

Zatrephes binotata, Roths. Nov. Zool. xvi. p. 30, pl. 4. f. 38 (1909).

♂. Head and thorax whitish mixed with pale brown and some crimson; palpi white at base; pectus and legs white, the fore tibiæ pale brown, the tarsi ringed with red-brown; abdomen white dorsally tinged with crimson. Fore wing whitish brown irrorated with crimson on basal half and striated with brown on terminal half; oblique pale brown antemedial and medial lines; a small postmedial hyaline spot below vein 7 and crimson point above it and small spots above and below vein 4, the lower wedge-shaped, and with crimson point above them, the spots slightly defined by crimson; cilia brown with white points towards apex and white tips between veins 4 and 2. Hind wing pale yellow tinged with crimson except on costal area, the termen and cilia red-brown, the latter white at tips; the underside white, the inner area tinged with reddish.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 38 millim.

1227 *q*. Zatrephes flavida. (Plate XLIV. fig. 1.)

Zatrephes flavida, Hmpsn. A. M. N. H. (7) xv. p. 441 (1905).
Zatrephes albotestacea, Roths. Nov. Zool. xxiv. p. 476 (1917).

♂. Head and thorax yellowish white, the head, metathorax, and fore tibiæ irrorated with crimson; mid and hind tibiæ and tarsi with brown spots; abdomen pale yellow with slight crimson irroration towards extremity, the ventral surface white. Fore wing very pale greenish yellow, the costal edge crimson; some faint striæ on terminal area; a pale greenish antemedial line slightly excurved below costa, then oblique; a similar postmedial line incurved below vein 4 with a bifid crimson-edged hyaline spot beyond it between veins 5 and 3; a similar minute spot sometimes present above middle of vein 6;

cilia irrorated with crimson and tipped with pure white below the angle. Hind wing ochreous yellow, the termen and cilia brown; the underside white, the inner area tinged with yellow.

♀. Fore wing with the lower part of the postmedial spot obsolescent; hind wing paler.

Hab. Fr. Guiana, St. Jean Maroni (*Schaus*), 1 ♂ type. *Exp.*, ♂ 34, ♀ 46 millim. Type † ♂ ♀ *albotestacea* in Coll. Rothschild.

1227 *r*. Zatrephes trilineata.

Zatrephes trilineata, Hmpsn. A. M. N. H. (7) xv. p. 441 (1905).

♂. Head and thorax brownish ochreous slightly irrorated with crimson; metathorax with brown crest; pectus and legs white; fore tibiæ brown irrorated with crimson; abdomen brownish ochreous slightly irrorated with crimson towards extremity, the ventral surface white. Fore wing ochreous irrorated with crimson, the terminal area striated with greenish brown; a slight greenish subbasal line; three prominent oblique greenish lines on medial

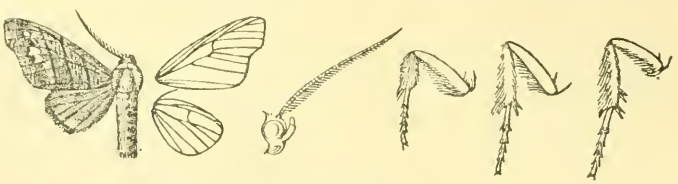

Fig. 13.—*Zatrephes trilineata*, ♂. ½.

area; two hyaline bidentate postmedial spots between veins 5 and 3 with some blackish on their outer side and slight greenish line from thence to inner margin, a pair of points above 5, and a small spot above 6 with point above it; cilia intersected with white towards apex and white-tipped below the angle. Hind wing pale yellow, the medial terminal area tinged with crimson, the cilia brownish; the underside white with the inner area tinged with yellow.

♀. Fore wing with the termen not excised below the angle, more thickly irrorated with crimson, the outer of the three lines slightly excurved below costa and vein 5; the hyaline spots reduced to those above veins 6 and 4.

Hind wing with veins 6 and 7 forking just before termen; female with veins 4 and 5 forking just before termen on left side only.

Hab. Fr. Guiana, St. Jean Maroni (*Schaus*), 1 ♂ type; Surinam R., Geldersland, type ♀ in U.S. Nat. Mus. *Exp.*, ♂ 34, ♀ 42 millim.

Subsp. *peruviana*, Roths. Nov. Zool. xvii. p. 13 (1910).

♂. Fore wing whiter and less yellow, the crimson irroration slighter.

Hab. Peru, Carabaya, R. Huacamayo, La Union (*Ockenden*), type † ♂ in Coll. Rothschild. S. Domingo.

*1227 *s*. Zatrephes modesta. (Plate XLIV. fig. 2.)

Zatrephes modesta, Schaus, Pr. U.S. Nat. Mus. xxix. p. 210 (1906).

♂. Head and thorax pale brownish ochreous irrorated with red; abdomen pale ochreous with some red irroration on dorsum and some brown at base. Fore wing pale ochreous slightly irrorated with scarlet; some red-brown suffusion at base and a fascia on inner margin from before middle to tornus; oblique olive-green antemedial, medial, and postmedial lines from below costa to vein 1; terminal area suffused with blood-red, its inner edge indented by semihyaline lunules above veins 3 and 4 and traces of another above 6. Hind wing pale yellow with some red-brown on termen and cilia between veins 2 and 1.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 32 millim.

Sect. II. Fore wing with the termen evenly curved.

*1227 *t*. Zatrephes pseudopræmolis.

Automolis pseudopræmolis, Roths. Nov. Zool. xvi. p. 40, pl. 6. f. 1 (1909).

♂. Head, thorax, and abdomen whitish suffused with crimson-red, the tegulæ white except at tips, the palpi brighter crimson; pectus, legs, and ventral surface of abdomen white, the fore femora and tibiæ at base crimson. Fore wing white tinged and irrorated with crimson to below costa near end of cell and thence obliquely to termen at submedian fold, edged with bright crimson slightly angled at vein 2; the costa whitish and crimson to apex with a slight crimson streak below the costa, emitting an oblique subapical bar to below vein 7, the large triangular space left being pale semihyaline yellow; the basal area suffused with violaceous grey; traces of a curved antemedial line and two postmedial lines on the whitish and crimson area. Hind wing white tinged with crimson except towards costa. Underside of both wings white, the fore wing with obliquely curved pale crimson fascia from below costa at end of cell to near termen at submedian fold, some pale crimson at base of costa and on medial part of costa, and a crimson spot below costa towards apex.

Hab. Peru, R. Inambari, La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

*1227 *u*. Zatrephes flavonotata.

Automolis flavonotata, Roths. Nov. Zool. xvi. p. 39, pl. 6. f. 4 (1909).

♀. Head, thorax, and abdomen crimson mixed with yellow; palpi yellow in front except at extremity; pectus white; legs yellow, the fore and mid legs suffused with crimson in front; anal tuft and ventral surface of abdomen white. Fore wing yellow suffused and irrorated with crimson to middle of costa and thence

to just before termen at vein 2 and tornus, tinged with violaceous towards its outer edge, which is slightly angled at vein 3, and leaving a large elliptical yellow patch slightly irrorated with crimson on base of costal area; the apical half of wing semihyaline yellow with a crimson band tinged with violaceous except at edges from apical part of costa to vein 5, its edges waved; two indistinct curved, waved medial lines and two similar postmedial lines on the crimson area, represented on the yellow area by a double curved series of slight crimson points on the veins; a subterminal point on vein 3. Hind wing yellow, suffused with crimson except on costal area and termen to vein 1.

Hab. Brazil, Amazons, Santo Antonio do Javary (*Klages*), type † ♀ in Coll. Rothschild. *Exp.* 36 millim.

1227 *v.* **Zatrephes traili**, trans. from *Automolis*, no. 1264.

1227 *w.* **Zatrephes nitida**, Stoll, trans. fron Vol. I. p. 475.

Zatrephes rosella, Roths. Nov. Zool. xxiv. p. 476 (1917).

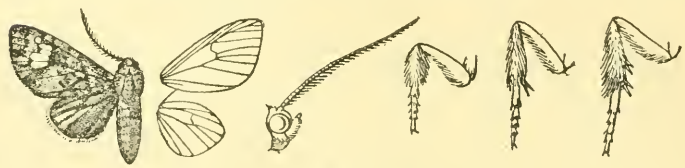

Fig. 14.— *Zatrephes nitida*, ♂. ½.

Hab. Fr. Guiana, type † ♂ *rosella* in Coll. Rothschild; Surinam; Peru, Carabaya.

*1227 *x.* **Zatrephes variegata.**

Zatrephes variegata, Roths. Nov. Zool. xvi. p. 28, pl. 4. f. 32 (1909).

♂. Head and thorax ochreous yellow thickly irrorated with brown and crimson; palpi crimson, white in front; frons white with some crimson scales; pectus and legs white, the fore legs with crimson mixed, the tarsi crimson ringed with white; abdomen crimson, yellowish at extremity and white below. Fore wing ochreous yellow irrorated with crimson, the costal half suffused and mottled with pale brown except on terminal area, extending to termen above tornus and its outer edge excurved at vein 5; the costal edge white except at apex; an oblique brown antemedial line slightly excurved at submedian fold; a black discoidal point and waved brown line from cell to inner margin followed by another line angled inwards at vein 1; an irregular hyaline yellow postmedial mark between veins 7 and 3, slightly defined by brown and with some crimson scales on it, constricted to a spot above vein 6. Hind wing crimson, the costal area white; the underside white slightly tinged with crimson except on costal area.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*) type † ♂ in Coll. Rothschild. *Exp.* 38 millim.

*1227 *y*. Zatrephes rufescens.

Zatrephes rufescens, Roths. Nov. Zool. xvi. p. 29 (1909); & xvii. pl. 12. f. 10.

♂. Head and thorax orange-red tinged with whitish, the dorsum of thorax with a brown streak; palpi white in front, crimson behind and brownish at tips; frons crimson; pectus and legs white, the fore femora crimson above and the tibiæ and tarsi thickly irrorated with red; abdomen crimson, the extremity whitish, the ventral surface pure white. Fore wing yellow thickly irrorated with crimson and suffused in parts with pale brown especially on basal costal area and beyond the cell; a pale fuscous brown antemedial line slightly bent inwards towards inner margin; a black discoidal point; a pale brownish line from lower angle of cell to inner margin, angled inwards at submedian fold and outwards at vein 1; a hyaline patch defined by brown beyond the cell between veins 6 and 3, its inner edge slightly waved, its outer produced above and below vein 4, a point above it above vein 6, surrounded by brownish suffusion which extends almost to costa, angled outwards to near termen at vein 5 and extending to termen towards tornus; cilia brown with yellow points except towards tornus. Hind wing yellowish white faintly tinged with crimson except at costa; cilia white; the underside pure white.

Hab. Surinam, Aroewarwar Creek; Brazil, Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild, Santo Antonio do Javary. *Exp.* 36 millim.

*1227 *z*. Zatrephes cruciata.

Zatrephes cruciata, Roths. Nov. Zool. xvi. p. 29, pl. 4. f. 35 (1909).

♂. Head and thorax pale ochreous yellow slightly irrorated with crimson; the antennæ and back of head red-brown, a slight brown dorsal streak on thorax; palpi crimson behind at base, brown towards tips; pectus and legs ochreous white, the fore legs with crimson mixed; abdomen pale ochreous dorsally suffused with crimson especially on medial segments. Fore wing pale ochreous yellow irrorated with crimson and with some pale brown striation on postmedial area from below costa to vein 2 and on subapical area; the costal edge white; an oblique brown antemedial line from below costa to inner margin; a black discoidal point; an excurved brown line from below origin of vein 2 to inner margin and an incurved line from lower angle of cell, meeting at vein 1 and forming a ×; an incurved line from vein 6 beyond middle to termen at vein 2 with a faint semihyaline patch beyond it between veins 7 and 3, constricted above and expanding between veins 5, 4. Hind wing white, the inner half suffused with crimson, some crimson irroration on terminal area between veins 6 and 3; the underside white, the inner area slightly tinged with crimson.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 36 millim.

*1227 *a'*. Zatrephes clagesi.

Zatrephes klagesi, Roths. Nov. Zool. xvi. p. 28, pl. 4. f. 31 (1909).

♂. Head and thorax ochreous yellow irrorated with brown and crimson; palpi crimson, white in front; pectus and legs white, the fore tibiæ and tarsi crimson on inner side; abdomen crimson, yellowish at extremity and white below. Fore wing ochreous yellow irrorated with crimson, the costal edge white except towards base and apex; an oblique brown antemedial line very slightly excurved at submedian fold; a blackish discoidal point; a slightly incurved brown line from just beyond lower angle of cell to inner margin; an irregular hyaline postmedial mark between veins 7 and 3 defined on inner side and above by brown and with some brown suffusion before it, constricted to a spot above vein 6 and expanding between veins 5 and 4; cilia brown. Hind wing crimson, the costal and inner areas white; the underside white faintly tinged with crimson except on costal area.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 34 millim.

*1227 *b'*. Zatrephes occendeni.

Zatrephes ockendeni, Roths. Nov. Zool. xvi. p. 29, pl. 4. f. 36 (1909).

♂. Head and thorax pale ochreous yellow irrorated with crimson, a red-brown dorsal streak on thorax; palpi crimson behind; antennæ with the branches brown; pectus and legs white, the fore and mid tibiæ and tarsi tinged with brown and irrorated with crimson; abdomen crimson, ochreous at extremity and white below. Fore wing pale ochreous yellow irrorated with crimson and tinged with pale brown on terminal half; a black point below base of cell; a fine oblique brown antemedial line; a black discoidal point and slight brown line from lower angle of cell to inner margin; an irregular hyaline postmedial patch defined by blackish between veins 7 and 3, constricted above and expanding between veins 5, 4; cilia brown at base. Hind wing white, the inner area suffused with crimson except at inner margin, some crimson irroration between veins 6 and 3; the underside white faintly tinged with crimson except on costal area.

Hab. Peru, Rio Inambari, La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

*1227 *c'*. Zatrephes propinqua.

Automolis propinqua, Roths. Nov. Zool. xvi. p. 39, pl. 6. f. 2 (1909).

♂. Head, thorax, and abdomen crimson; palpi white in front; pectus, legs, and ventral surface of abdomen white, the fore legs crimson in front. Fore wing yellow suffused and thickly irrorated with crimson, the spaces between the violaceous bands yellow; the basal area with patches of violaceous grey suffusion from costa to submedian fold; an ill-defined oblique medial violaceous band; a large oblique hyaline patch on postmedial area between veins 6

and 3, its outer edge produced to a point below vein 5, an oblique violaceous line from its inner edge to inner margin; a violaceous band with dentate outer edge beyond the patch from below costa to termen above tornus. Hind wing white tinged with crimson, the inner area more strongly suffused with crimson; the underside white.

Hab. PERU, Carabaya, R. Huacamayo (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 42 millim.

*1227 *d'*. Zatrephes crocos, trans. from *Automolis*, No. 1265.

♀. Fore wing with the postmedial yellow patch not extending below vein 3 and widely separated from termen.

BRAZIL, Rio Janeiro in Coll. D. Jones.

*1227 *e'*. Zatrephes flavipuncta.

Zatrephes flavipuncta, Roths. Nov. Zool. xvi. p. 28, pl. 4. f. 33 (1909).

♂. Head and thorax yellow tinged with brown and irrorated with crimson; palpi crimson, white in front; pectus and legs white, the fore legs brownish and crimson in front; abdomen crimson, yellowish at extremity and white below. Fore wing yellowish suffused with brown and irrorated with crimson, the apical part of terminal area paler and with conjoined yellow terminal spots at veins 4, 3; the costal edge white; a slight dark antemedial line excurved below costa and in submedian fold, followed by a minute yellow spot in upper part of cell; a black discoidal point, and two slight waved dark lines from lower angle of cell to inner margin, meeting at vein 1; a lunulate hyaline postmedial patch between veins 7 and 3 with waved deep crimson edges expanding below vein 5 to towards termen; cilia yellow at tips except towards tornus. Hind wing crimson; the underside white, tinged with crimson except on costal area.

Hab. SURINAM, Maroewym Valley, Aroewarwar Creek (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 34 millim.

*1227 *f'*. Zatrephes carmesina.

Automolis carmesina, Roths. Nov. Zool. xvi. p. 40, pl. 6. ff. 5, 6 (1909).

♂. Head and thorax crimson slightly mixed with yellow; palpi white in front; pectus, mid and hind legs white, the tarsi crimson at extremities; abdomen crimson, the ventral surface white. Fore wing crimson mixed with some yellow and slightly tinged in parts with violaceous grey; traces of a double waved antemedial line, of a similar medial line from lower angle of cell to inner margin and a similar postmedial line, the last with oblique hyaline patch edged with deep crimson on it between veins 6 and 4, its outer edge trilobate and with a small yellow spot above it; traces of a dentate

subterminal line. Hind wing crimson with a faint semihyaline streak beyond lower angle of cell; the underside white, the inner area tinged with crimson.

♀. Fore wing more strongly tinged with violaceous grey, the hyaline patch bilobed, the middle lobe absent.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 42, ♀ 52 millim.

*1227 *g'*. Zatrephes rosacea.

Zatrephes rosacea, Roths. Nov. Zool. xvi. p. 27, pl. 4. ff. 29, 30 (1909).

Head and thorax yellowish white suffused with reddish brown and irrorated with crimson; palpi crimson; antennæ red-brown; abdomen crimson, the ventral surface yellowish white. Fore wing yellow tinged with red-brown and thickly irrorated with crimson; a slight oblique brown antemedial line from subcostal nervure to inner margin; a black discoidal point; three postmedial hyaline spots edged with brown between veins 7 and 4, the upper spot bar-shaped, the middle one bifid, and the lower one elliptical, a faint oblique brown line from it to vein 2 and a faint line from vein 3 just beyond angle of cell to inner margin, angled inwards at vein 1; cilia brown. Hind wing yellow suffused with crimson except on costal area and cilia. Underside yellow, the apical half of fore wing suffused with red-brown from costa near base to termen at vein 3.

Hab. Fr. Guiana, St. Laurent Maroni, in Coll. Dognin; Brazil, Amazons, Fonte Boa, type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 36, ♀ 42 millim.

1227 *h'*. Zatrephes arenosa. (Plate XLIV. fig. 3.)

Zatrephes arenosa, Schaus, Pr. U.S. Nat. Mus. xxix. p. 210 (1906).

♂. Head and thorax white thickly irrorated with crimson; abdomen white, dorsally suffused with scarlet except at extremity which is irrorated with crimson. Fore wing violaceous white irrorated with crimson; an oblique pale olive-brown antemedial line from below costa to inner margin; a discoidal point; an oblique pale olive-brown postmedial line from vein 7 to inner margin with three semihyaline spots on its outer edge between veins 7 and 4, the lowest more elongate; cilia pale brown. Hind wing scarlet, the costal area and cilia white. Underside white with crimson irroration on outer half of costal half of fore wing.

Hab. Fr. Guiana, St. Jean Maroni (*Schaus*), 1 ♂. *Exp.* 32 millim.

*1227 *i'*. Zatrephes brunnea. (Plate XLIV. fig. 4.)

Zatrephes brunnea, Roths. Nov. Zool. xvi. p. 30 (1909).

♂. Head and thorax yellow mixed with pale red-brown and crimson; palpi yellow, crimson behind; pectus and legs white, the

fore and mid tibiæ and tarsi with brown and crimson mixed; abdomen crimson, ventrally white. Fore wing yellow irrorated with crimson, the costa suffused with pale red-brown, an oblique red-brown medial band, the terminal area suffused and striated with red-brown; black points below base of cell and in end of cell; traces of a sinuous brown antemedial line; a small hyaline postmedial bar above vein 6 and curved trifid mark between veins 6 and 4 incompletely defined by black. Hind wing yellow suffused with crimson except on costal area; the underside white faintly tinged with crimson except on costal area.

Hab. Peru, Carabaya, Rio Huacamayo, La Union (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 34 millim.

1227*j'*. Zatrephes dithyris. (Plate XLIV. fig. 5.)

Zatrephes dithyris, Hmpsn. A. M. N. H. (7) xv. p. 440 (1905).

♂. Head and thorax pale flesh-brown irrorated with crimson; abdomen crimson with whitish dorsal streak on basal and slight segmental lines on terminal segments, the ventral surface whitish. Fore wing flesh-colour irrorated with crimson; a nearly straight, erect, pale brown antemedial line; a broad medial band and black discoidal point; traces of a fine irregular postmedial line with hyaline points on it above and below vein 4; an indistinct subterminal line, incurved and diffused below vein 5. Hind wing crimson, the costa and cilia pale yellow. Underside yellowish white with slight crimson irroration and suffusion.

Hind wing with veins 6, 7 forking before termen.

Hab. Cayenne, St. Jean Maroni (*Schaus*), 1 ♂ type. *Exp.* 34 millim.

*1227 *k'*. Zatrephes lentiginosa. (Plate LXV. fig. 5.)

Zatrephes lentiginosus, Roths. Nov. Zool. xxiv. p. 476 (1917).

♂. Head crimson and yellow, the antennæ fulvous yellow, the palpi white, crimson behind; thorax orange-yellow irrorated with crimson; abdomen with the three basal segments white with the crests orange-yellow, the other segments pale yellow; pectus and legs white, the fore legs streaked with yellow and crimson above, the mid tarsi streaked with crimson, the hind tarsi slightly ringed with crimson; ventral surface of abdomen pale yellow. Fore wing pale orange-yellow thickly irrorated with crimson; an oblique pale yellow brownish antemedial line from subcostal nervure to inner margin and a similar line just beyond the cell, arising below the costa; a small hyaline spot defined by crimson below middle of vein 5 and a minute brown point below vein 7; cilia crimson and brown. Hind wing yellow, the costal area white; the termen crimson from below apex to submedian fold; cilia white.

Hab. Fr. Guiana, St. Jean Maroni (*Le Moult*), type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

*1227 *l'*. Zatrephes irrorata.

Zatrephes irrorata, Roths. Nov. Zool. xvi. p. 28, pl. 4. f. 34 (1909).

♂. Head and thorax yellow largely mixed with red-brown; palpi white tinged with crimson behind; pectus and legs white, the legs irrorated with crimson and the fore legs with red-brown mixed; abdomen crimson, white below. Fore wing ochreous yellow thickly striated with red-brown and irrorated with red-brown and some crimson; the veins streaked with red-brown, a more prominent streak from middle of costa along vein 2 to termen; a slight oblique line from origin of vein 2 to inner margin and an incurved line from vein 3 beyond the cell to inner margin; minute postmedial hyaline spots edged with black above and below vein 6; two blackish subapical points and small subterminal hyaline spots edged with blackish above and below vein 4; cilia red-brown. Hind wing yellowish suffused with crimson, the cilia white; the underside white tinged and irrorated with crimson.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 36 millim.

*1227 *m'*. Zatrephes subflavescens.

Zatrephes subflavescens, Roths. Nov. Zool. xvi. p. 31, pl. 5. f. 1 (1909).

♂. Head and thorax yellowish white faintly tinged with brown and irrorated with a few crimson scales, the thorax with slight brown dorsal streak; palpi tinged with crimson behind; antennæ brown; fore tibiæ with some crimson and red-brown in front, the tarsi ringed with brown; abdomen yellowish white. Fore wing yellowish white irrorated with a few red-brown scales to the postmedial line, the terminal area striated with pale brown; an oblique pale brown antemedial line from subcostal nervure to inner margin and postmedial line from vein 6 to inner margin; a postmedial semihyaline white spot below vein 5 and small spot nearer the termen above vein 6; cilia red-brown. Hind wing yellowish white, the cilia tinged with red-brown except at tornus.

Hab. Surinam, Maroewym Valley, Aroewarwar Creek (*Klages*), type † ♂ in Coll. Rothschild; Brazil, Up. Amazons, Fonte Boa. *Exp.* 36 millim.

*1227 *n'*. Zatrephes bicolorata.

Apatelodes bicolorata, Druce, A. M. N. H. (7) xviii. p. 93 (1906).
Zatrephes sublutescens, Roths. Nov. Zool. xvi. p. 33, pl. 5. f. 7 (1909).

♂. Head and thorax yellowish white irrorated with a few crimson scales, the dorsum of thorax with red-brown streak; palpi behind and back of head crimson, the frons with crimson markings; antennæ red-brown; fore tibiæ irrorated with crimson, the tarsi slightly ringed with crimson; abdomen yellowish white with slight red-brown dorsal streak except towards extremity. Fore wing

pale yellow irrorated with crimson; the costal edge red-brown; oblique pale brown ante- and postmedial lines from below costa to inner margin; a small subterminal black spot below vein 5 and point above vein 6; cilia red-brown. Hind wing silky yellowish white.

Hab. Peru, San Domingo (*Ockenden*), type † ♂ in Coll. Joicey, Rio Inamburi, La Oroya (*Ockenden*), type † ♂ *sublutescens* in Coll. Rothschild. *Exp.* 42 millim.

*1227 *o'*. Zatrephes iridescens.

Zatrephes nitida, Roths. Nov. Zool. xvi. p. 32, pl. 5. f. 5 (1909), nec Stoll.
Zatrephes iridescens, Roths. Nov. Zool. xvii. p. 14 (1910).

♂. Head and thorax white, the head and tegulæ irrorated with crimson; palpi crimson above; antennæ suffused with crimson; fore legs suffused with crimson above; abdomen crimson with dorsal series of small white spots, the extremity and ventral surface white. Fore wing white with a faint greenish tinge; a faint oblique brownish line from below middle of costa to inner margin and similar postmedial line from vein 6 to 2; cilia pale rufous. Hind wing white, the inner area faintly tinged with crimson.

Hab. Fr. Guiana, St. Laurent Maroni in Coll. Dognin; Brazil, Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

*1227 *p'*. Zatrephes albescens.

Zatrephes albescens, Roths. Nov. Zool. xvi. p. 32, pl. 5. ff. 3, 4 (1909).

♂. Head and thorax white with a few pale red scales, the dorsum of thorax with red-brown streak; frons and back of head irrorated with crimson; antennæ pale red-brown; fore tibiæ and tarsi rufous in front; abdomen white dorsally tinged with red-brown. Fore wing creamy white irrorated with a few red scales to the postmedial line, the terminal area striated with pale brown; the costal edge red-brown; an oblique pale brown antemedial line from subcostal nervure to inner margin and postmedial line from vein 6 to inner margin, the latter with faint hyaline spots beyond it above and below vein 4 and red-brown striga above vein 6; cilia red-brown, pale at tips. Hind wing white, the cilia tinged with red-brown at base.

♀. Fore wing without the hyaline spot below vein 4 and with small spot above vein 5.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 32, ♀ 42 millim.

*1227 *q'*. Zatrephes ossea. (Plate XLIV. fig. 6.)

Zatrephes ossea, Schaus, Pr. U.S. Nat. Mus. xxix. p. 211 (1906).

♂. Fore wing with vein 3 from close to angle of cell; 6 shortly stalked with 7, 8, 9, 10.

Head and thorax brownish white irrorated with scarlet; antennæ, a spot on vertex of head and dorsal streak on thorax brown; abdomen white, dorsally suffused with crimson except at extremity and with two brown dorsal spots at base. Fore wing white, the basal area irrorated with scarlet, the terminal half striated with brown, the veins finely streaked with brown, the margins narrowly olive-brown; oblique antemedial and postmedial olive-brown lines approximating towards inner margin, the latter outwardly edged with white between veins 7 and 3. Hind wing semihyaline white, the inner area suffused with crimson, the cilia brown, tinged with crimson towards tornus.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in Coll. Schaus. *Exp.* 42 millim.

1228. Eupseudosoma bifasciata.

The male of the typical form is scarlet, the red-brown form is *eurygania*, Druce; the female is scarlet sometimes tinged with red-brown with a large white anal tuft, the veins of the outer half of fore wing usually more strongly streaked with black and the postmedial line excurved. Both forms occur at Yahuarmayo, Peru.

1229. Eupseudosoma involuta, insert :—

Automolis bicolor, Roths. Nov. Zool. xvi. pl. 5. f. 34 ♂ (nec ♀).
Eupseudosoma involuta, ab. *flavida*, Dogn. Hét. Nouv. Am. Sud, ii. p. 14 (1911).

Pectus in front and abdomen above yellow. Fr. Guiana.

1229 *a*. Eupseudosoma aberrans.

Eupseudosoma aberrans, Schaus, Pr. U.S. Nat. Mus. xxix. p. 211 (1906); Roths. Nov. Zool. xvi. pl. 4. f. 24.

♂. Head and thorax pure white; palpi brown at tips; frons with two brown spots above and yellow patch between antennæ which are brown; fore and mid legs streaked with brown; abdomen crimson with dorsal line, the extremity, sides, and ventral surface white. Fore wing semihyaline white, the costal edge dark brown except at base. Hind wing semihyaline white, the inner half tinged with crimson.

♀. Hind wing without any crimson tinge.

Hab. Trinidad; Brazil, Rio Janeiro, 1 ♂, 1 ♀; Paraguay. *Exp.*, ♂ 42, ♀ 44 millim.

Subsp. 1. Hind wing of male without crimson on inner area.

Hab. Costa Rica, Juan Vinas (*Schaus*), 1 ♂.

*1229 *b*. Eupseudosoma grandis.

Eupseudosoma grandis, Roths. Nov. Zool. xvi. p. 26, pl. 4. f. 23 (1909).

♂. Head and thorax white, the head and tegulæ tinged with yellow; palpi black above; frons with black bar above; antennæ

blackish except the shaft towards base; fore and mid tibiæ streaked with blackish; abdomen crimson with dorsal series of slight white points, the base, extremity, and ventral surface white. Fore wing semihyaline white; the costal edge black on terminal half; faint fuscous streaks above vein 2, above basal half of submedian fold and above and below it towards extremity and above medial part of inner margin. Hind wing semihyaline white.

♀. Head and tegulæ less strongly tinged with yellow; abdomen with more white at extremity.

Hab. Peru, Carabaya, S. Domingo (*Ockenden*), type † ♂ in Coll. Rothschild, R. Huacamayo (*Ockenden*), Marcapata, Caradoc. *Exp.*, ♂ 50, ♀ 58 millim.

*1229 *c.* Eupseudosoma bicolor.

Automolis bicolor, Roths. Nov. Zool. xvi. p. 38, pl. 5. f. 35 (1909).

♀. Head and thorax white faintly tinged with brown, the prothorax with crimson spot, the patagia with crimson streak on outer edge; palpi with crimson spot on basal joint, the 2nd joint black behind and with black bar at extremity; antennæ brown except towards base; fore coxæ in front and femora above crimson, the tibiæ and tarsi with black spots; abdomen crimson, the extremity and ventral surface white. Fore wing brownish white, the base of inner margin with slight crimson mark; a slight oblique antemedial black streak above inner margin and slight medial streaks above and below submedian fold; the discocellulars defined by slight black striæ, a short black streak above base of vein 3 and a slight streak below medial part of costa; the terminal area with slight blackish streaks above and below vein 7 and slight points on termen above and below vein 5. Hind wing semihyaline brownish white.

Hab. Colombia, Sta. Marta (*Engelke*), type † ♀ in Coll. Rothschild. *Exp.* 42 millim.

Pl. 5. f. 34 is *Eupseudosoma involuta* ♂, the description is evidently taken from the ♀.

*1229 *d.* Eupseudosoma nigropunctata.

Automolis nigropunctata, Roths. Nov. Zool. xvi. p. 37, pl. 5. f. 32 (1909).

♂. Head and thorax white, the head, tegulæ, and prothorax suffused with orange-yellow; palpi black behind and greyish towards extremity; frons with black band; antennæ black except towards base; fore coxæ tinged with orange, the femora and tibiæ streaked with black, the mid tibiæ at base and the hind tibiæ at extremities with black spots, the tarsi black above ringed with white; abdomen white, the dorsum slightly tinged with brown except towards extremity. Fore wing white, the costal edge black; a short black streak on extremity of median nervure and short

streaks above and below submedian fold and above inner margin; a subterminal black spot in discal fold. Hind wing semihyaline white.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

*1230 *a*. Eupseudosoma marpessa. (Plate XLIV. fig. 7.)

Idalus marpessa, Druce, A. M. N. H. (7) xvii. p. 407 (1906).

♂. Head and thorax crimson, the outer half of tegulæ and patagia rather darker; pectus and legs white, the fore tibiæ crimson except at extremity; abdomen crimson, the 1st segment with slight dark patch, the 2nd with small dorsal white spot, the terminal segments rather darker, the ventral surface white. Fore wing crimson suffused with brownish except on inner area leaving the medial part of costal edge pale; a faint oblique dark antemedial line; a large yellowish white patch from end of cell to termen, its upper edge extending almost to costa and indented by a triangular crimson mark from costa before apex, its lower edge obliquely incurved to tornus, irrorated with a few crimson points between veins 5 and 2 on subterminal area. Hind wing with the basal and inner areas pale crimson, the apical area yellowish white. Underside of fore wing with the crimson area pale with dark patch in end of cell; hind wing with the costal and inner areas yellowish, the latter tinged with crimson, a crimson spot on base of costa and another on discocellulars.

Hab. Peru, Carabaya (*Ockenden*), type † in Coll. Joicey. *Exp.* 34 millim.

*1230 *b*. Eupseudosoma parapessa. (Plate XLIV. fig. 8.)

Eupseudosoma parapessa, Dogn. Hét. Nouv. Am. Sud, iii. p. 9 (1911).

♂. (Head wanting); thorax and abdomen crimson mixed with red-brown; pectus, legs, and ventral surface of abdomen white. Fore wing crimson suffused with greyish brown, the terminal area with large semicircular pale yellow patch from just below apex to just above tornus with some postmedial and subterminal red points on it between veins 4 and 2, the red area edged with dark brown and crimson, emitting a subapical tooth to below vein 6, slightly excurved at vein 6 and beyond lower angle of cell, excurved below vein 2; a nearly straight erect brown antemedial line; an incurved brown postmedial line from the edge of the red area at vein 2 to inner margin. Hind wing crimson with the terminal area semihyaline yellowish white, very broad at costa, bent outwards at vein 2, then oblique to termen at vein 1; the underside yellowish white tinged with crimson, the terminal area semihyaline as above.

Hab. Peru, Carabaya, La Union, type † ♂ in Coll. Dognin. *Exp.* 32 millim.

*1230 *c*. Eupseudosoma affinis.

Antaxia affinis, Roths. Nov. Zool. xvi. p. 26, pl. iv. f. 20 (1909).

♂. Head, thorax, and abdomen fiery red slightly tinged with brown; pectus and legs yellow, the fore and mid tibiæ slightly banded with red-brown; ventral surface of abdomen yellow, suffused with red-brown on basal half. Fore wing fiery red tinged with brown extending to apex and tornus and leaving a large semihyaline pale yellow semicircular patch on terminal area, its inner edge indented by a triangular patch before apex and slightly angled at vein 6, beyond lower angle of cell and at submedian fold; a rather oblique dark antemedial line and sinuous medial line; a postmedial red point on vein 3 and three subterminal points on and between veins 4 and 3. Hind wing bright pink, some whitish at base of costa and inner margin; a semihyaline yellowish white patch on terminal area from apex to submedian fold, its inner edge angled inwards beyond lower angle of cell; the underside with the pink area white slightly tinged with pink except at costa.

Hind wing with vein 7 represented by a short spur from angle of cell.

Hab. S.E. Peru, Carabaya, Huacamayo, type † ♂ in Coll. Rothschild, La Union, in Coll. Dognin. *Exp.* 32 millim.

1231 *a*. Neaxia bella. (Plate XLIV. fig. 9.)

Neaxia bella, Schaus, Pr. U.S. Nat. Mus. xxix. p. 212 (1906).

♂. Head and thorax chrome-yellow; palpi above brown; frons with brown bar; antennæ brown, yellow at base and whitish at tips; patagia and dorsum of thorax with paired brown patches edged with scarlet, metathorax with similar spots; legs banded with brown, their bases and pectus white; abdomen crimson, the base, extremity, and a dorsal spot on 2nd segment yellow, the ventral surface white. Fore wing chrome-yellow with purple-brown markings, the larger ones edged with scarlet; a spot below base of cell confluent with an antemedial series of irregular patches which again are confluent with elongate spots above and below submedian fold and below vein 1 extending to tornus, a small spot in end of cell with short streak above it and four small spots beyond the cell, a postmedial series of spots, those towards costa larger and the spot above vein 5 bidentate and placed nearer the termen, a subapical spot and a series of small spots just before termen and below costa towards apex. Hind wing yellow suffused with crimson and with large elliptical brown patch on middle of terminal area.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in U.S. Nat. Mus., St. Laurent Maroni, 1 ♂. *Exp.* 32 millim.

*1231 *b*. Neaxia eccendeni.

Neaxia eckendeni, Roths. Nov. Zool. xvi. p. 26, pl. 4. f. 26 (1909).

♂. Head and thorax yellow; palpi brown behind and at tips; frons with brown bar above; antennæ brown, whitish at tips;

vertex of head with red-brown spot; patagia with red-brown fasciæ; pectus and legs white, the fore tibiæ yellow, the tibiæ banded with blackish and the tarsi blackish at tips; abdomen crimson with white dorsal spot on 2nd segment, the extremity and ventral surface white. Fore wing yellow with yellow-brown markings defined by black-brown; an irregular mark at base with small annulus beyond it below the cell and slight black streak below costa, a very irregular antemedial band expanding into an annulus below the cell enclosing a yellow spot, a small spot in end of cell and four spots beyond the cell, a curved postmedial series of irregular spots, the spots in discal fold and on inner margin more elongate and the spot in submedian interspace double, a subterminal series of small spots with brown lunule before it below costa, the spot in submedian interspace double, a series of brown points just before termen and a terminal series. Hind wing yellow tinged with crimson; the underside white tinged with yellow except towards costa.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*); Peru, Carabaya, R. Huacamayo (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 36 millim.

*1231 *c.* Neaxia clagesi.

Neaxia klagesi, Roths. Nov. Zool. xvi. p. 27, pl. 4. f. 27 (1909).

♂. Head and thorax yellow; palpi black-brown behind and at tips; frons with brown bar above; antennæ brown, white at tips; tegulæ with brown spot at base of dorsum; shoulders brown; patagia with brown fasciæ, the dorsum of thorax with brown streaks; fore femora with brown mark on outer side, the femora, tibiæ, and tarsi at extremities brown; abdomen crimson with some yellow on dorsum of basal segment, the extremity and ventral surface white. Fore wing yellow with brown markings tinged with grey in centres; a streak above base of vein 1, an antemedial series of irregular spots with crimson streaks between them on the veins, the spots below costa and in cell elongate, the spot at inner margin small and nearer base, a small spot beyond it in cell and another above base of vein 2, small spots in and above end of cell and four beyond the cell, a postmedial series of irregular spots with slight crimson streaks between them towards costa and inner margin, the spot in discal fold nearer termen and bifid at extremity, the spot in submedian fold double and the spot at inner margin extending to tornus, two small spots below costa towards apex and a larger spot below vein 8, a series of small spots just before termen. Hind wing pale yellow, some brown hair on inner area and a large rounded brown patch on inner area below vein 2; the underside yellowish white.

Hind wing with vein 3 from 5 just before termen.

Hab. Surinam, Maroewyn Valley, Aroewarwar Creek (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 38 millim.

*1231 *d.* Neaxia gnosia.

Neaxia gnosia, Schaus, Pr. U.S. Nat. Mus. xxix. p. 211 (1906).

Hind wing of male with the costa very strongly lobed; veins 2 and 5 from angle of cell.

♂. Head and thorax chrome-yellow; palpi tinged with scarlet above; frons with scarlet bar; neck with scarlet ring; patagia with brownish patches edged with scarlet; pro-, meso-, and metathorax with paired scarlet spots; pectus crimson in front; legs mostly white: abdomen dorsally crimson, yellow at extremity, the ventral surface white. Fore wing chrome-yellow; a purple fuscous patch on middle of inner margin extending to middle of cell, edged

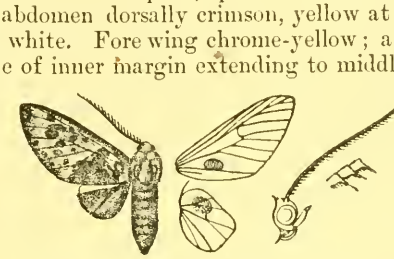

Fig. 15.—*Neaxia gnosia*, ♂. ½.

with scarlet and with curved scarlet streak in submedian fold; some small scarlet annuli on basal area; a small brown annulus edged with reddish in end of cell and four beyond the cell; a postmedial series of similar spots with the three towards costa larger and more elongate; a subterminal series of similar small annuli. Hind wing white suffused with crimson except on costal area, the cilia yellow.

Hab. Br. Guiana, Omai, type † ♂ in U.S. Nat. Mus. *Exp.* 38 millim.

*1231 *e.* Neaxia cennedyi. (Plate XLIV. fig. 10.)

Neaxia kennedyi, Roths. Nov. Zool. xvi. p. 269 (1909).

♂. Head and thorax yellow, the dorsum of thorax and upper edge of patagia suffused with red-brown and crimson; palpi at tips and antennæ red-brown; frons with crimson bars at middle and between antennæ; pectus and legs white, the fore and mid tibiæ suffused with brown; abdomen crimson, the extremity and ventral surface white. Fore wing yellow; a brown spot edged with crimson at base of cell and subbasal spots in and below the cell and above inner margin; the medial area with large patch with irregularly waved edge from below costa to terminal part of inner margin, edged with crimson and the veins on it streaked with crimson; a small pale red-brown spot in upper extremity of cell, four spots just beyond the cell, a postmedial series from below costa to below vein 3, the spots between veins 8 and 5 large, and with small spots beyond them above and below vein 7, and two subterminal series of small spots from costa to below vein 2; a terminal series of points. Hind wing white tinged with crimson; the underside white.

Hab. Brazil, Minas Geraes (*Kennedy*), type † ♂ in Coll. Rothschild. *Exp.* 34 millim.

*1231*f*. Neaxia flavicollis.

Prumala flavicollis, Roths. Nov. Zool. xvi. p. 25, pl. 4. f. 15 (1909).

♂. Head and tegulæ yellow; palpi crimson and black above; frons with crimson bar at middle and purplish grey bar above; antennæ brown, whitish at tips; thorax purple-grey, the base of patagia yellow with oblique crimson line between it and the grey area; pectus and legs yellow, the fore femora blackish above; abdomen crimson, yellowish at base and the ventral surface yellow. Fore wing yellow; a large purple-grey patch on inner area extending from base to tornus, darker and edged with crimson at upper edge which is highly arched, projecting into the cell and above base of vein 3; a small grey spot in end of cell and minute crimson streak above upper angle; four small grey spots beyond the cell, the spot in discal fold displaced inwards; a wedge-shaped purplish grey postmedial patch edged with crimson from costa, followed by four small grey spots between veins 6 and 2; a series of small grey subterminal spots from costa to vein 2 and a terminal series of slight crimson lunules. Hind wing crimson with the costa and inner margin yellow. Underside yellow, the fore wing with diffused dark patch round the patch of androconia.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 32 millim.

*1232 *a*. Eriostepta bacchans. (Plate XLIV. fig. 11.)

Eriostepta bacchans, Schaus, Pr. U.S. Nat. Mus. xxix. p. 212 (1906).

♂. Head and thorax yellow strongly suffused with scarlet; antennæ brownish; pectus and legs mostly white; abdomen dorsally crimson, ventrally whitish. Fore wing yellow with rather broad scarlet fasciæ along the veins and in submedian fold, the cell mottled with scarlet, the costal edge brown; antemedial small annulate marks below costa and above inner margin and one at each angle of cell: a postmedial oblique series between veins 5 and 1 and 3 from below costa beyond middle to above vein 5 near termen; traces of a waved subterminal line; a terminal line; cilia brown. Hind wing pale yellow, the costal area and area below the cell suffused with crimson.

Hind wing with veins 3, 5 stalked to near termen.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 38 millim.

*1232 *b*. Eriostepta fulvescens.

Eriostepta fulvescens, Roths. Nov. Zool. xvi. p. 27, pl. 4. f. 23 (1909).

♂. Head and thorax yellow; antennæ tinged with brown; vertex of head with pale crimson spot; tegulæ, patagia, and vertex of thorax with pale crimson streaks, the tegulæ, meso- and metathorax with paired black points; tibiæ and tarsi at base and

extremities with brown bands; abdomen yellow, dorsally tinged with crimson especially at base. Fore wing yellow with pale crimson streaks below base of costa and vein 1; a brown streak above base of vein 1, then bent downwards to inner margin at postmedial line; obliquely placed subbasal black points below costa and in cell; a double sinuous antemedial series of black points from below costa to vein 1; the discal fold with pale crimson streak at middle of cell and two medial dentate marks below the cell, and streak above vein 1; two black points in cell towards extremity and a brown discoidal annulus with some crimson in centre; an oblique series of black points beyond the cell from below vein 6 to below submedian fold, a point further from base above vein 6; the extremity of median nervure and the bases of the veins beyond the cell with pale crimson streaks; a maculate brown postmedial line, incurved below costa and oblique below vein 5, with black points before it between veins 6 and 3 and beyond it from below costa to vein 1; the veins of terminal area defined on each side by subterminal and terminal series of short crimson streaks with a series of small blackish spots between them in the interspaces; a terminal series of black points. Hind wing yellow faintly tinged with red-brown. Underside yellow; fore wing with postmedial and subterminal series of faint brown spots.

Hab. Fr. Guiana, St. Laurent Maroni in Coll. Dognin; Surinam, Maroewyn Valley, Aroewarwar Creek; Brazil, Amazons, Fonte Boa, type ♂ in Coll. Rothschild. *Exp.* 36 millim.

1232 *c*. Eriostepta beata.

Eriostepta beata, Dogn. Ann. Soc. Ent. Belg. liii. p. 219 (1909).

Hind wing of male with the costal area dilated into a lobe with a large patch of androconia on upperside, the apical area strongly truncate, the wing not clothed with long rough hair and the inner area without fold and tufts of hair.

♂. Head and tegulæ yellow, the frons above and vertex of head with crimson patches; palpi black and crimson above; antennæ

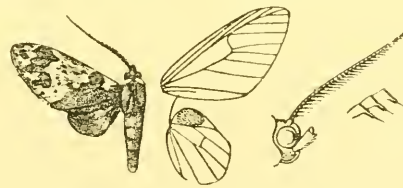

Fig. 16.—*Eriostepta beata*, ♂. $\frac{1}{1}$.

blackish, crimson at base and white at tips; thorax crimson, some blackish at base of tegulæ and blackish dorsal stripe; abdomen crimson with slight blackish mark at base; pectus, legs, and ventral surface of abdomen yellowish white, the fore femora above and

tibiæ and tarsi at extremities black, the mid tibiæ at base and extremities with black spots. Fore wing with the basal area crimson irrorated with brownish and defined by black, its outer edge extending obliquely from costa before middle to termen at submedian fold, irregular and with a projection to near base of vein 3, the veins on it streaked with crimson, enclosing an irregularly triangular subbasal yellow patch on costa and with a faint curved yellowish and crimson line from vein 2 to inner margin; the rest of wing yellow; a small black spot in upper angle of cell with elongate spot above it, four spots beyond the cell and two below vein 3 towards termen; a very irregular subterminal crimson band tinged with fuscous and defined by black, formed by elongate marks in the interspaces with crimson streaks between them on the veins from costa to vein 3; a small black spot on costa towards apex, apical and subapical blackish spots edged with crimson, and a series of small black spots just before termen from below apex to below vein 3. Hind wing pale crimson, the costal area yellowish, the terminal area irregularly suffused with black; the underside yellowish white faintly tinged with crimson except on costal area.

♀. Fore wing with the brown and crimson patches larger; hind wing wholly brown.

Hab. Fr. Guiana, St. Laurent Maroni, type† ♂ in Coll. Dognin; Peru, Yahuarmayo. 1 ♀. *Exp.*, ♂ 34. ♀ 44 millim.

*1232 *d.* Eriostepta peruana. (Plate LXV. fig. 6.)

Amaxia peruana, Roths. Nov. Zool. xxiii. p. 265 (1916).

♂. Head and thorax chrome-yellow, the vertex of head with black spot, the patagia with curved grey-brown patch defined by black near upper edge, a scarlet point at middle and some scarlet on outer edge and at extremity, the meso- and metathorax with paired dark grey-brown marks; antennæ black-brown with some yellow at base and white tips; frons with black bar above; palpi black behind; abdomen crimson with small dorsal yellow spot on 2nd segment and the anal tuft yellow; pectus, legs, and ventral surface of abdomen white, the fore femora above and tibiæ at base black, the latter with some pale crimson on inner side, the mid femora at extremity and tibiæ at base black, the fore and mid tibiæ and tarsi at extremities black. Fore wing chrome-yellow; a grey spot at base defined by black and some scarlet and similar subbasal spots below costa and cell; a very irregular maculate oblique grey antemedial band defined by black and scarlet, lunulate to median nervure, then formed by irregular spots conjoined to a medial spot and expanding widely towards inner margin where it extends to the tornus; small grey spots defined by blackish in and above upper angle of cell and four spots beyond the cell; a postmedial series of spots from costa to vein 2 with scarlet streaks between them on the veins to vein 4, the spot above vein 5 more produced; some small dark brown spots on costa towards apex; a subterminal series of small spots with grey centres with larger brown spots before them

above and below vein 7 and a series of points beyond them; a terminal series of points. Hind wing creamy white. Underside white, fore wing with the spots showing indistinctly, the lunulate spot in middle of cell and the postmedial spots above and below vein 6 blacker.

Hab. Peru, Carabaya, San Domingo (*Ockenden*). type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

*1232 *e*. Eriostepta pseudamaxia.

Eriostepta pseudamaxia, Roths. Nov. Zool. xxiv. p. 477 (1917).

Hind wing of male with veins 6, 7 shortly stalked, the costa strongly lobed near base, then truncate to termen at vein 5, a patch of androconia in upper end of cell on upperside, coinciding with a large rounded patch on underside of fore wing below the cell and vein 2.

♂. Head yellow mixed with some crimson, the antennæ grey-brown with some crimson at base, the palpi yellow, crimson behind to near extremity of 2nd joint which is grey-brown; thorax grey-brown, the tegulæ with the dorsal and outer edges yellow defined by crimson streaks, the patagia yellow with crimson edges, pure white at tips, the metathorax with crimson streak; abdomen crimson; pectus, legs, and ventral surface of abdomen white, the fore femora and tibiæ crimson above. Fore wing violaceous grey-brown to costa before middle and to termen above tornus, its outer edge defined by crimson, the rest of wing yellow; some crimson at

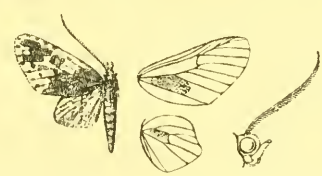

Fig. 17.—*Eriostepta pseudamaxia*, ♂. ½

base of inner margin; a small elongate yellow spot at middle of submedian fold with small spots above and below its extremity below vein 2 and above vein 1, all defined by crimson; the median nervure except towards base, the bases of veins 1 and 2, the extremity of vein 1, and veins 8 to 5 streaked with crimson; a violaceous brown patch beyond the cell above vein 5, indented above, and small spot below base of vein 4 defined by crimson; elongate violaceous brown marks above veins 5, 6, 7, the mark above vein 6 further from termen, some small spots above them on costa; small subterminal violaceous brown spots above veins 4 and 3, and a terminal series. Hind wing white with a wedge-shaped violaceous brown patch at middle of termen, then the termen tinged with violaceous brown to tornus. Underside white, the fore wing tinged with violaceous brown.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

1235 *a*. Amaxia consistens. (Plate XLIV. fig. 12.).

Amaxia consistens, Schaus, Pr. U.S. Nat. Mus. xxix. p. 212 (1905).
Amaxia maroniensis, Roths. Nov. Zool. xxiv. p. 477 (1917).

♂. Head and tegulæ bright yellow; palpi in front and behind and sides of frons brown, palpi tinged with scarlet at sides; vertex of head with red spots; thorax purple-brown, the patagia yellow on shoulders, then with some scarlet; legs yellow and white, the tibiæ with red points at extremity; abdomen brown, the extremity scarlet with a brown spot, the tip yellow, the ventral surface white. Fore wing bright yellow with a large purple-brown patch from base below the cell to base of vein 3 then incurved to tornus, extending into middle of cell and to just above subcostal nervure, edged with scarlet and the veins and folds on it streaked with scarlet; a scarlet spot above inner margin beyond middle; a small fuscous spot in upper end of cell and slight streak above angle, four spots beyond the cell between veins 7 and 3, the spot above 4 displaced outwards; some slight brown streaks edged with scarlet below costa towards apex and similar obliquely placed spots above and below vein 7 followed by four fuscous spots; a subterminal series of small fuscous spots in the interspaces. Hind wing brown, the margins pale yellowish, the edges of the brown area tinged with pink; the underside pale yellow tinged with pink on inner half.

Ab. 1. *maroniensis*. Hind wing with the brown restricted to a point below vein 6 and a subterminal band between veins 2 and 1 interrupted at submedian fold.

Hab. Fr. Guiana, St. Jean Maroni (*Schaus*), 1 ♂, type† ♂ *maroniensis* in Coll. Rothschild. *Exp.* 36 millim.

*1236 *a*. Amaxia pulchra.

Amaxia pulchra, Roths. Nov. Zool. xvi. p. 34, pl. 5. f. 16 (1909).

♂. Head and thorax yellow; palpi crimson behind; frons crimson at sides and with crimson bar; antennæ brown, white at tips and with some crimson at base; vertex of head with crimson spot; tegulæ at base and shoulders crimson; patagia with dark fascia edged with crimson on upper edge, the prothorax with dark streak edged with crimson and the metathorax with some crimson; pectus and legs white, the fore femora blackish above, the tibiæ and tarsi yellow with crimson spots at base and extremity of tibiæ and extremity of tarsi; abdomen crimson, white at extremity and below. Fore wing yellow; a large oblique fuscous brown patch edged with crimson and the veins on it streaked with crimson from middle of cell to terminal half of inner margin; a crimson annulus at base, an elliptical subbasal annulus below costa and annuli below the cell and on inner margin, the last filled in with fuscous; a small pale red-brown spot in end of cell, small crimson annulus at upper angle, and four small red-brown spots beyond end of cell

between veins 7 and 3; a lunulate postmedial patch formed by three conjoined fuscous spots defined by crimson from below costa to vein 5, followed by four small red-brown spots between vein 5 and submedian fold; a subterminal series of small red-brown spots, a series just before termen and a terminal series of crimson points. Hind wing white suffused with crimson except on costal area; the underside white faintly tinged with crimson except on costal area.

Hab. Brazil, Minas Geraes; Peru, Carabaya, San Domingo (*Ockenden*), type † ♂ in Coll. Rothschild, R. Inambari, La Union. *Exp.* 46 millim.

*1236 *b*. Amaxia parva.

Amaxia pardalis, parva, Roths. Nov. Zool. xvi. p. 34, pl. 5. f. 17 (1909).

♂. Head and thorax yellow; palpi white with some scarlet at sides and blackish behind; frons with scarlet bar; antennæ brown; vertex of head with scarlet streak; tegulæ scarlet at base; patagia with brownish fascia edged with scarlet on upper edge, the prothorax with brownish markings edged with scarlet, the metathorax with some scarlet; pectus and legs white, the fore tibiæ yellow with brownish and scarlet markings; abdomen crimson, white at extremity and below. Fore wing yellow; basal and subbasal scarlet annuli below costa and cell and a brownish fascia edged with scarlet on inner margin; a brown band edged by waved scarlet lines from costa before middle to submedian fold where it is conjoined to irregular patches above inner margin and on terminal part of inner margin; a small scarlet annulus at upper angle of cell; small brown annuli with greyish centres in end of cell and four beyond the cell between veins 7 and 3; a lunulate postmedial patch formed by three conjoined brownish spots edged with scarlet from below costa, to which they are conjoined by a brown annulus, to vein 5, followed by four small brown annuli with grey centres between vein 5 and submedian fold, three small scarlet and brownish spots beyond the lunulate patch from costa to vein 6; a subterminal series of small brown annuli with grey centres, a series just before termen and a terminal series. Hind wing white tinged with crimson except on costal area; the underside pure white.

Hab. Surinam, Maroewyn Valley, Aroewarwar Creek (*Klages*), type † ♂ in Coll. Rothschild; Brazil, Amazons, Manãos. *Exp.* 26 millim.

1239 *a*. Amaxia flavipuncta. (Plate XLIV. fig. 13.)

Amaxia flavipuncta, Hmpsn. A. M. N. H. (7) xi. p. 351 (1903).

♂. Head, tegulæ, and base of patagia bright yellow; palpi white in front and with some crimson behind; antennæ brownish, white at tips; thorax pale brown edged with crimson; pectus and legs white, fore femora brown above, the tibiæ yellow with crimson spot;

abdomen crimson, the ventral surface white. Fore wing yellow, a large basal brown patch extending below costa to before middle and thence with irregular outer edge to termen above tornus, the veins crossing it, a streak in submedian fold and two points in cell crimson; a yellow spot edged with crimson on middle of inner margin; a small brown spot in end of cell; a series beyond to cell, the spot above vein 5 displaced inwards; a postmedial series with the spots towards costa larger and edged with crimson; a subterminal series of small spots. Hind wing yellowish white suffused with brown except the costal area and inner margin.

Hab. Brazil, Rio Janeiro, Tijuca (*S. R. Wagner*). 1 ♂ type. *Exp.* 34 millim.

*1243*a*. Evius albiscripta.

Evius albiscripta, Schaus, Pr. U.S. Nat. Mus. xxix. p. 213 (1906).

Antennæ of male bipectinate with moderate branches; abdomen with tufts of very long hair from the lateral stigmata. Fore wing with the lower part of cell short, the upper part very much produced; hind wing with the inner area developed into a very large lobe.

♂. Palpi white, crimson behind and brown in front towards extremity; frons brown, white below; upper part of head white with a crimson patch; antennæ brown, the 1st joint and basal half

Fig. 18.—*Evius albiscripta*. ♂. ½.

of shaft crimson, the tips white; thorax brown; tegulæ with white spots edged with crimson; patagia white, crimson above; metathorax with white bar defined by dark brown and some crimson at sides; pectus and legs white, the fore legs with some crimson in front and brown behind; abdomen white dorsally crimson at base and beyond middle, the terminal segment red-brown with white line before it and white tip. Fore wing brown; some crimson at base of inner margin; a crimson streak below costa except at base; a crimson and white subbasal spot below the cell; a short white antemedial streak in the cell; a white streak edged with crimson above and black below on basal half of vein 2; a white point above middle of vein 1; a large yellowish hyaline patch beyond the cell between veins 7 and 3, its upper edge indented, its outer edge rounded; vein 7 streaked with crimson at middle and with small white spot above it and streak below it; the extremity of the veins with crimson

points, a white point above vein 5 on termen and two obliquely placed striæ below it, a short white streak above extremity of vein 3. Hind wing crimson with the inner area whitish. Underside with the basal half of fore wing suffused with crimson.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 32 millim.

1243 *b*. Evius cochenouri.

Evius cochenouri, Schaus, A. M. N. H. (8) vi. p. 198 (1910).

♂. Head and thorax yellow, the sides of thorax and metathorax behind crimson; palpi crimson, blackish in front; lower part of frons and shoulders black, the latter with crimson streak below; antennæ blackish, yellow and crimson towards base; pectus and legs white, the fore femora with black streak and the tibiæ with crimson streak on inner side, the tarsi tinged with crimson; the mid femora with crimson spot at extremity; abdomen crimson, the extremity and ventral surface white. Fore wing fuscous brown with some crimson suffusion and edged with crimson to apex, then

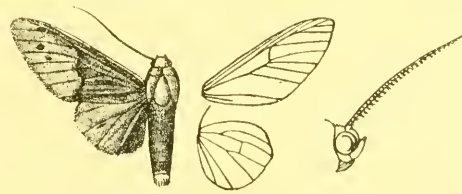

Fig. 19.—*Evius cochenouri*. ♂. ½.

with a slightly sinuous inward curve to lower angle of cell and tornus, the elliptical terminal area yellow; the costal edge pure white with a crimson streak below it to beyond middle; a crimson patch at base of inner margin; a curved postmedial series of slight fuscous spots from costa to vein 4. Hind wing pale yellow tinged with crimson except towards apex, the inner area suffused with crimson. Underside of fore wing with the costal area, cell, and a patch below its extremity crimson, a fuscous discoidal patch; hind wing with the costal area, cell, and inner area suffused with crimson.

Hab. Costa Rica, Tuis (*Schaus*), 1 ♂. *Exp.* 44 millim.

*1244 *a*. Neonerita yahuasæ.

Neonerita yahuasæ, Joicey, A. M. N. H. (8) xviii. p. 54, pl. 14. f. 3 (1916).

Antennæ of male bipectinate; fore wing with vein 11 stalked with 7, 8, 9, 10; hind wing with veins 3 and 5 from cell, 6, 7 coincident, 8 absent.

♂. Head yellow with the upper part of frons crimson, the antennæ pale red-brown, the palpi crimson at sides; thorax yellow with some crimson scales on tegulæ, the tips of patagia and lateral marks on

metathorax crimson; pectus and legs white, the base of fore tibiæ crimson; abdomen white with dorsal crimson patches on basal segments, then dorsally suffused with dark brown. Fore wing pale crimson; the costal edge yellowish white towards base; some yellowish white on base of inner margin; the apical area yellowish white from middle of costa to termen above tornus, the outer edge of the crimson area sinuous with some dark scales on it; a large round pale crimson patch edged with dark scales before termen from costa to below vein 5. Hind wing yellowish white with some pale crimson in lower extremity of cell and a pale crimson tinge in submedian interspace beyond middle. Underside of fore wing with the basal and inner areas yellowish white; hind wing wholly yellowish white.

Hab. Peru, Yahaus territory, type† ♂ in Coll. Joicey. *Exp.* 24 millim.

*1244 *b*. **Neonerita metaphœnica.**

Neonerita metaphœnica, Joicey, P. Z. S. 1917, p. 265, pl. 1. f. 5 (1918).

♂. Head, thorax, and abdomen pale crimson; pectus, legs, and ventral surface of abdomen white, the fore femora in front towards extremity and the tibiæ towards base pale crimson. Fore wing pale crimson with a brownish tinge to middle of costa and tornus, its outer edge curved and defined by some crimson; the rest of wing yellowish white with a rounded subapical pale crimson patch tinged with brownish except at edges; the costal edge whitish to near base. Hind wing pale crimson, the base and costal area white, on terminal area extending to vein 2. Underside of fore wing as above but without the brownish tinge, the costal area white to base with some crimson at base of costa, the inner area white; hind wing white with a faint crimson tinge except on inner area.

Hab. Fr. Guiana, St. Jean Maroni (*Le Moult*), type† ♂ in Coll. Joicey. *Exp.* 22 millim.

1244 *c*. **Neonerita hæmasticta.**

Neonerita hæmasticta, Dognin, Ann. Soc. Ent. Belg. l. p. 181 (1906).

♂. Head, tegulæ, and patagia deep red-brown; palpi crimson;

Fig. 20.—*Neonerita hæmasticta*, ♂. ½.

frons with crimson spot; antennæ with the shaft crimson towards tips; thorax crimson; legs with some yellow hair; abdomen dorsally

red-brown, crimson at base, the ventral surface yellow. Fore wing with the basal area crimson suffused with purple-brown, running obliquely from costa before middle to tornus, its outer edge angled on subcostal and median nervures and vein 1; the terminal area yellow with scattered small round scarlet spots; an elliptical brown patch suffused with purplish grey and edged with scarlet from costa before apex to below vein 6. Hind wing pale yellow, the basal inner area tinged with crimson. Underside of fore wing with the basal area crimson with brown fascia on costa.

Hab. Peru, Carabaya, Agualani (*Ockenden*), 2 ♂. Limbari (*Ockenden*), 3 ♂, type † ♂ in Coll. Dognin. *Exp.* 44 millim.

Subsp. *parvimacula* Roths. Nov. Zool. xvii. p. 16 (1910).

♂. Fore wing with the basal area and subapical patch slightly paler, the latter somewhat smaller and more triangular.

Hab. W. Colombia, San Antonio (*Palmer*), type † ♂ in Coll. Rothschild.

*1244*d*. Neonerita arcifera. (Plate XLIV. fig. 14.)

Neonerita arcifera, Dogn. Mém. Soc. Ent. Belg. xix. p. 129 (1912).

Fore wing with veins 6 and 11 stalked with 7, 8, 9, 10; hind wing with veins 3 and 5 from the cell; 6, 7 coincident, 8 from lower angle of cell.

♂. Head and thorax dark red-brown mixed with crimson, the upper edge of patagia crimson; palpi crimson; pectus and legs crimson, the tibiæ and tarsi yellow in front; abdomen crimson suffused with dark red-brown at extremity, the ventral surface yellow. Fore wing with the basal area crimson suffused with dark red-brown except on inner area, its outer edge evenly incurved from costa before middle to tornus; the rest of wing yellow with post-medial red-brown points on veins 4, 3, and an oblique elliptical red-brown patch edged with crimson from costa near apex to below vein 6. Hind wing pale yellow.

Hab. Colombia, Paramo del Quindiu, type † ♂ in Coll. Dognin. *Exp.* 42 millim.

*1244*e*. Neonerita syrissa.

Idalus syrissa, Druce, A. M. N. H. (7) xvii. p. 407 (1906); Roths. Nov. Zool. xvi. pl. 4. f. 21.

♂. Head and tegulæ dark brown tinged with greyish; palpi with crimson stripe at sides; thorax pale reddish brown; pectus and legs pale crimson, the tibiæ dark brown, the tarsi whitish; abdomen dark brown, crimson at base and with lateral crimson stripes, a small dorsal white spot on 2nd segment, the ventral surface white. Fore wing with the basal area crimson suffused with dark brown, its outer edge oblique from costa to tornus and slightly dentate on the veins, a pale crimson streak on base of inner margin; a faint inwardly oblique greyish antemedial line from

subcostal nervure to vein 1 defined by fuscous on outer side and a faint oblique greyish line defined by fuscous on inner side from vein 2 to inner margin near the edge of the dark area; the rest of wing very pale yellow with some reddish postmedial points between veins 6 and 2 and an oblique dark greyish brown mark edged with crimson from apex, its lower extremity bent outwards, narrow and ending on vein 6. Hind wing yellowish white, the basal and inner areas to near tornus tinged with crimson and brown.

Hab. PERU, Carabaya (*Ockenden*), type † ♂ in Coll. Joicey. *Exp.* 40 millim.

*1244*f*?. **Neonerita minerva.** (Plate XLIV. fig. 15.)

Pseudalus minerva, Schaus, Trans. Am. Ent. Soc. xli. p. 2 (1915).

♂. Head, thorax, and abdomen crimson. Fore wing crimson, the costa to beyond middle, the end of cell, and a wedge-shaped shade below end of cell with a slight brownish tinge; the apical area yellowish white with slight crimson streaks on the veins from just below costa at end of cell to termen at vein 2 leaving a quadrate crimson patch with some whitish in the interspaces at apex extending to vein 5. Hind wing yellowish white, the inner area slightly tinged with crimson.

Fore wing with veins 3, 4 from cell.

Hab. BRAZIL, Nova Friburgo. *Exp.* 42 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

*1244*g*. **Neonerita perversa.**

Neritos perversa, Roths. Nov. Zool. xvi. p. 294 (1909).

Antennæ of male serrate; hind wing with veins 3, 5 and 6, 7 coincident, the wing rounded and clothed with rough scales, the inner area with fold and the tornus lobed.

♂. Head and thorax whitish suffused with pink, the vertex of head with yellow band edged with deeper crimson; abdomen pale

Fig. 21.—*Neonerita perversa*, ♂. ½.

crimson with tuft of silvery white scales at base; pectus, legs, and ventral surface of abdomen white. Fore wing pink; an oblique semihyaline yellow band from costa just beyond middle to termen between veins 4 and 2, edged with deep crimson, its edges slightly

waved from costa to veins 3, 2 where it is constricted. Hind wing pale yellow.

Hab. Fr. Guiana, Nouveau Chantier (*Le Moult*), in Coll. Dognin; Brazil, Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 22 millim.

1245. Aræomolis rhodographa, insert :—

Subsp. *peruviana* Roths. Nov. Zool. xvi. p. 269 (1909).

Hind wing with the basal and inner areas tinged with crimson.

Hab. Peru, Carabaya, R. Huacamayo. La Union (*Ockenden*), type † ♂ in Coll. Rothschild.

*1245 *a*. Aræomolis persimilis.

Aræomolis persimilis, Roths. Nov. Zool. xvi. p. 270 (1909), & xviii. pl. 5. f. 34.

Head and thorax white; palpi crimson, brown at tips; frons with brown bar with crimson bar above it, crimson bars between antennæ and at back of head; antennæ brown, whitish at tips and with the basal joint crimson; tegulæ with crimson annuli and tips, patagia with crimson annuli and edges, thorax with crimson dorsal streak; pectus white, tinged with crimson in front; legs white banded with crimson and brown; abdomen crimson, the extremity and ventral surface white. Fore wing red-brown; an irregular white fascia on base of inner margin with crimson streaks on it; an antemedial white patch below costa with crimson streak on it, confluent with a wedge-shaped patch in the cell with V-shaped crimson mark on it and an irregular patch below end of cell with looped crimson mark on it and streaks on veins 4, 3; the veins beyond upper angle of cell streaked with crimson, also veins 4, 3 toward termen; postmedial white spots from costa to vein 5 and a small spot above base of vein 7; subterminal white spots from below costa to below vein 6 and from below 5 to below 3; small whitish spot on termen and cilia at the veins. Hind wing white, the inner area tinged with crimson and in female the terminal area also.

Hab. Surinam, Maroewyn Valley, Aroewarwar Creek; Brazil, Amazons, R. Madira, San Antonio, Allianca, Hunayta, Fonte Boa (*Klages*), type † ♀ in Coll. Rothschild; Peru, Carabaya, R. Huacamayo, La Union. *Exp.*, ♂ 28, ♀ 30 millim.

*1245 *b*. Aræomolis guianensis.

Aræomolis guianensis, Joicey, A. M. N. H. (8) xviii. p. 56, pl. 14. f. 5 (1916).

♀. Head and thorax white, the frons with crimson bar above, the vertex of head with curved crimson mark, the tegulæ with crimson bars at middle and crimson outer edge, the patagia with crimson edges and streak at middle, the thorax with crimson dorsal

and subdorsal streaks; antennæ crimson towards base, whitish towards extremity; pectus and legs creamy white, the fore femora pale brown, the tibiæ crimson with the extremity brown, the tarsi crimson ringed with white and with the extremity brown, the mid tibiæ with brown bands at base and tips, the tarsi with crimson at base of joints and the extremity brown, the hind tibiæ with brown band at extremity; abdomen crimson, the ventral surface creamy white. Fore wing pale grey-brown mottled with creamy white, the veins and submedian fold streaked with crimson; some crimson at base of inner margin with some white on its outer edge; obliquely placed white antemedial spots in and below the cell with some crimson on their inner sides; a crimson streak in terminal part of cell with white spots above and below it at middle of cell, the upper defined by a dark striga outwardly, the lower on both sides, conjoined to a white patch edged by dark striæ below the cell, narrowing below the submedian fold and ending at vein 1; the discocellulars crimson with some white on each side of them; white spots above bases of veins 6 to 3, defined on outer side by dark striæ; a terminal series of white spots in the interspaces defined on inner side by dark striæ, the spots above veins 6 and 3 longer and the spot below vein 6 small; cilia white with series of dark brown spots. Hind wing pale crimson, the costal area whitish to beyond middle. Underside pale crimson; fore wing with the costal area grey-brown except at base, the area beyond the cell grey-brown to vein 2 with the spots on it white.

Hab. Fr. Guiana, St. Jean Maroni (*Le Moult*), type † ♀ in Coll. Joicey. *Exp.* 40 millim.

1245 *c*. **Aræomolis sanguinea.**

Aræomolis sanguinea, Hmpsn. A. M. N. H. (7) xv. p. 442 (1905).

Antennæ of male serrate and fasciculate; hind wing with the tornus produced to a very large lobe clothed with rough hair and scales above and below, the termen excised before it; veins 6, 7

Fig. 22. *Aræomolis sanguinea*, ♂. ½.

shortly stalked, 8 from before middle of cell, sinuous: of female 6, 7 coincident and 8 stalked with them to near apex.

♂. Head and thorax scarlet mixed with yellow; palpi with the 1st joint white in front, the 2nd and 3rd ochreous; pectus and legs white; fore coxæ, extremity of femora, tibiæ, and 1st joint of

tarsus on inner side scarlet, the rest of femora on inner side brown, the other tarsal joints scarlet with white rings; mid tibiæ except at base and tarsi on outer side scarlet; hind tibiæ at extremity on outer side and rings on tarsal joints scarlet; abdomen crimson, the 2nd, 3rd, and 4th segments dorsally brown, the ventral surface white. Fore wing scarlet striated with yellow and the interspaces beyond the cell streaked with yellow, the costal edge white; an antemedial series of four indistinct purplish-tinged spots; a medial maculate purplish band from below costa to above inner margin towards which it narrows, edged by yellow lines and angled outwards below vein 3; a curved series of small purplish yellow-edged spots from below costa to vein 3 near the medial band; cilia yellow at tips. Hind wing crimson, the area covered by the fore wing pale brownish, the inner margin brownish yellow.

♀. Abdomen wholly crimson above; fore wing with the costal area suffused with fuscous, prominent interrupted yellow streaks in the interspaces, the maculate bands more distinct, the antemedial bent round to base below the cell and the spot in cell separate, the medial more broken up and irregular, the spots towards inner margin elongate, a terminal series of brown streaks on the veins; hind wing wholly crimson.

Hab. Fr. Guiana, St. Jean Maroni (*Schaus*), 1 ♂ type, type ♀ in U.S. Nat. Mus. *Exp.*, ♂ 36, ♀ 40 millim.

*1245 *d*. Aræomolis nigripuncta.

Aræomolis nigripuncta, Joicey, P. Z. S. 1917, p. 266, pl. 1, f. 6 (1918).

♂. Head and thorax scarlet mixed with yellow; abdomen pale crimson with the tip of anal tuft white; antennæ brown at middle and white at tips; palpi white in front; pectus, legs, and ventral surface of abdomen white, the fore tibiæ scarlet on inner side and the mid and hind tibiæ in front towards extremity, the tarsi almost entirely scarlet. Fore wing scarlet mixed with yellow, the costal edge white, with a slight brownish streak below it; antemedial blackish points in and below the cell and above vein 1 with some pale brownish before them in and just below the cell; a pale brownish maculate band formed by a double series of spots in and beyond end of cell, then single to tornus, with four blackish points on its inner side from below subcostal nervure to below vein 2 and points on its outer edge in the interspaces between veins 7 and 2; a subterminal series of small brownish spots defined on each side by blackish points between veins 8 and 3, the spots below vein 6 nearer the termen; some slight blackish points on termen from apex to vein 2. Hind wing pale crimson, the area to beyond the cell semihyaline white tinged with brown from costa to submedian fold. Underside pale crimson, the fore wing with the costal area brownish, the hind wing with the inner area whitish.

Hab. Fr. Guiana, St. Laurent Maroni, type ♂ in Coll. Joicey. *Exp.* 36 millim.

*1245 *c*. Aræomolis hæmatoneura.

Aræomolis hæmatoneura, Joicey, A. M. N. H. (8) xviii. p. 55. pl. 14, f. 4 (1916).

♂. Head and thorax yellow mixed with crimson, the tegulæ with crimson spot at middle and crimson edges, the metathorax with dark brown patch with crimson spot at middle; antennæ dark brown, crimson at base and white at tips; palpi crimson, yellow in front and with the 3rd joint brown; fore legs with the tibiæ and base of tarsi brown, the mid and hind tibiæ banded with pale brown; abdomen crimson, the ventral surface pale brown, yellowish at base. Fore wing grey-brown; a crimson fascia on basal half of inner margin with two slight white spots on its upper edge and a small black spot on it at middle; a yellowish white antemedial spot below costa conjoined to a spot in and below the cell which is conjoined to a spot in middle of cell, all with crimson marks on them, the spots in and below the cell with yellowish white centres; the veins beyond the cell streaked with crimson; a yellowish white patch beyond the cell with an oblique crimson streak on it, small yellowish white spots above veins 7, 6, 4, and an oblique maculate band traversed by a dentate crimson line from above base of vein 3 to vein 1, the crimson line connected in submedian fold with the crimson mark on the spot below middle of cell; some yellowish white on postmedial part of costa; a subterminal series of irregular yellowish white spots with crimson marks on them, the spot below vein 3 minute; the crimson streaks on the veins expanding into slight spots at termen edged with yellowish white. Hind wing pale crimson, the costal area and cilia yellowish white. Underside yellowish tinged with crimson; fore wing with the costa dark grey-brown, crimson at base, the area beyond the cell dark grey-brown to above vein 2 with the spots on it yellowish white tinged with crimson.

Hab. Colombia, Choko, La Selva San Juan, type † ♂ in Coll. Joicey. *Exp.* 38 millim.

Genus **HÆMAPHLEBIA**.

	Type.
Hæmaphlebia, Hmpsn. A. M. N. H. (8) viii. p. 407 (1911)	. . *venata*.

Proboscis fully developed: palpi upturned, the 2nd joint reaching to middle of frons, the 3rd short; frons smooth; antennæ of male bipectinate with moderate branches, the apex serrate; hind tibiæ with two pairs of spurs; abdomen with some rough hair at base. Fore wing with the apex rounded, the termen evenly curved and not crenulate; vein 3 from before angle of cell; 5 from above angle; 7, 8, 9, 10 stalked, 7 from just beyond 10; 11 from cell. Hind wing with veins 3 and 5 stalked, 4 absent; 6, 7 shortly stalked; 8 from middle of cell.

In key differs from *Aræomolis* in the hind wing having veins 3, 5 and 6, 7 shortly stalked.

*1245 *f.* Hæmaphlebia venata.

Baritius venata, Roths. A. M. N. H. (8) iv. p. 210 (1909); id. Nov. Zool. xvii. pl. 12. f. 33.

♂. Head and thorax yellow; palpi with the 2nd joint scarlet behind and brown at tip; frons with brown bar; vertex of head with scarlet spot; tegulæ with scarlet lunules and fuscous medial points; patagia with scarlet annuli and upper edge; dorsum of thorax with scarlet stripe; tibiæ with fuscous spots, tarsi with fuscous rings; abdomen scarlet, yellow at extremity and on ventral surface. Fore wing yellow, the veins, discal and submedian folds streaked with scarlet, the costa with brown striæ except at base; a subbasal black point below costa; a purple-brown fascia from

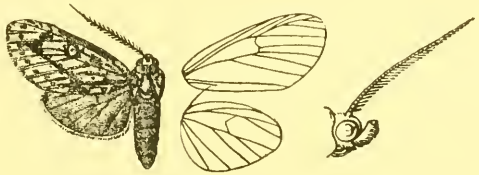

Fig. 23. —*Hæmaphlebia venata*, ♂. ½.

base above vein 1 forking at the double antemedial series of black points; four black points in middle of cell; a purple-brown discoidal annulus with a scarlet spot on the yellow centre and black point beyond it; a purple-brown postmedial band edged by black points, angled inwards above vein 6 and produced to a short streak in discal fold, then very oblique to middle of inner margin where it is produced to a short streak; a subterminal series of small purple-brown spots in the interspaces; a series of small blackish spots on termen and cilia. Hind wing scarlet, the costal area and cilia yellow; the underside yellow.

Hab. Surinam, Aroewarwar Creek; Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

The Genera *Paranerita*, *Hyponerita*, and *Neritos* are better placed before *Pareria*, the differences in the subcostal neuration of the fore wing being considered as secondary developments.

*2017 *a.* Paranerita metaxantha.

Paranerita metaxantha, Dogn. Hét. Nouv. Am. Sud. vii. p. 19 (1914).

Hind wing with veins 3 and 5 from the cell.

♂. Head and thorax pale fulvous brown; palpi with crimson streaks at sides; antennæ black, crimson at base; patagia with slight crimson streaks, the metathorax edged with crimson; pectus and legs white, the fore legs yellow, the mid and hind tibiæ with yellow streaks at base, the tarsi yellow, crimson at extremities;

abdomen yellow, the ventral surface white. Fore wing pale purplish brown to middle of costa and thence to termen at vein 2, with crimson streak on costa and the inner area suffused with

Fig. 24. *Paranerita metaxantha*, ♂. ½.

crimson, followed by a broad obliquely downcurved opalescent white band with the costa yellow; a large rounded apical purple-brown patch edged with crimson; cilia yellow. Hind wing yellow.

Hab. Colombia, Medina (*Fassl*), type † ♂ in Coll. Dognin. *Exp.* 30 millim.

*2017 *b*. Paranerita hæmabasis.

Paranerita hæmabasis, Dogn. Hét. Nouv. Am. Sud, vii. p. 20 (1914).

Hind femora, tibiæ and tarsi of male with thick fringes of hairs and scales.

♂. Head black-brown, the vertex scarlet; thorax scarlet; pectus and legs brownish ochreous mixed with some fuscous brown; abdomen black-brown glossed with blue, the basal segment

Fig. 25. *Paranerita hæmabasis*, ♂. ½.

scarlet, the ventral surface paler brown. Wings fuscous brown with their bases scarlet. Underside of fore wing with the tuft of hair in the fovea white.

Hab. Colombia. Nuozo (*Fassl*), type † ♂ in Coll. Dognin. *Exp.* 36 millim.

*2017 *c*. Paranerita alboapicalis.

Araeomolis alboapicalis, Roths. Nov. Zool. xvi. p. 35. pl. 7. f. 29 (1909).

Hind femora and tibiæ of male with thick fringes of long hair and scales.

♂. Head and thorax black-brown, the back of head with two orange-red spots; pectus and legs with some yellow, the fringes of

hair and scales on hind legs yellow; abdomen scarlet with the terminal segments black-brown, the ventral surface yellow except the terminal segments. Fore wing black-brown; a rounded white

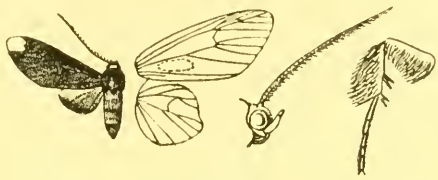

Fig. 26. *Paranerita alboapicalis*, ♂. ½.

apical patch. Hind wing yellow tinged with scarlet, the costal area white; a black terminal band from below apex to near tornus towards which it narrows; the underside yellow, the costa black-brown except towards base, the termen suffused with brown.

Hab. Surinam, Maroewyn Valley, Aroewarwar Creek (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 32 millim.

*2017 *d.* Paranerita hampsoni.

Neritos hampsoni, Roths. Nov. Zool. xvi. p. 292 (1909). & xviii. pl. 4. f. 33.

Abdomen of male on underside clothed with rough scales; fore wing with elongate fovea below the cell containing a tuft of white hair; hind wing on underside with the whole inner area clothed with rough scales.

♂. Head white with crimson bar behind; palpi yellow tinged with crimson, brown in front; frons brown; antennæ yellow; tegulæ and patches at base of patagia white; thorax brown with

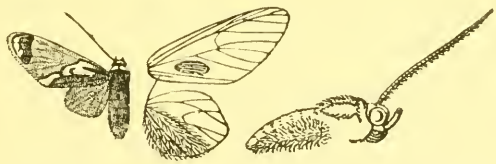

Fig. 27.—*Paranerita hampsoni*, ♂. ½.

slight crimson streaks on upper edge of patagia at base; pectus and legs yellow, the fore legs tinged with crimson in front; abdomen crimson, yellow at base and extremity and below. Fore wing brown to the costa before middle and thence with slightly sinuous outer edge defined by crimson to termen at submedian fold; a slight crimson streak below the costa; a minute yellow spot edged with crimson below base of costa and a yellow mark edged with crimson above at base of inner margin; a white fascia below the costa from near base to near edge of brown area, then as an oblique

fascia to submedian fold and hooked beyond the fovea, at submedian fold almost conjoined to another fascia extending to tornus where it is somewhat dilated; the rest of wing greenish yellow, yellow at costa, with a large triangular apical purple-brown patch suffused with white and edged with crimson extending to vein 4 and with slightly waved edges; cilia yellow. Hind wing yellow tinged with crimson except on basal and costal areas; the underside wholly tinged with crimson.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*). type † ♂ in Coll. Rothschild. *Exp.* 28 millim.

*2017 *e.* Paranerita complicata. (Plate XLIV. fig. 16.)

Paranerita complicata, Schaus. Pr. U.S. Nat. Mus. xxix. p. 227 (1905).
Paranerita plagosa, Roths. Nov. Zool. xxiv. p. 478 (1917).

♂. Head crimson with a yellow spot on vertex; palpi brown in front; antennæ brown, crimson towards base; tegulæ yellow with crimson edges; thorax brown, the upper edge of patagia crimson; abdomen brown tinged with crimson, the extremity yellow; pectus, legs, and ventral surface of abdomen yellow, fore legs crimson in front. Fore wing brown; the basal area with large irregular crimson patch, from below the costa to above inner margin, extending to base below the cell and with three yellow spots on it; a crimson annulus with yellow centre on middle of inner margin; an oblique crimson-edged yellow triangular patch from the costa just beyond middle to below vein 3 with a crimson point on it at upper angle of cell, some crimson spots below its extremity and beyond it between the costa and vein 5; crimson-edged yellow patches with crimson streaks on extremities of veins on termen below apex and between vein 5 and tornus. Hind wing yellow tinged with crimson.

♀. Hind wing with terminal brown band from apex to vein 2.

Ab. 1. *plagosa*. Fore wing with more yellow in centre of the subbasal patch, the postmedial patch truncate and not extending below vein 5.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in Coll. U.S. Nat. Mus., ♀ in Coll. Dognin; St. Laurent Maroni, type † ♀ *plagosa* in Coll. Rothschild. *Exp.* 28 millim.

*2017 *f.* Paranerita rubrosignata. (Plate LXV. fig. 7.)

Paranerita rubrosignata, Roths. Nov. Zool. xxiv. p. 479 (1917).

♂. Head yellow with some crimson on frons and vertex, the palpi blackish in front except towards base, the back of head and thorax dark purplish brown; abdomen crimson; pectus, legs, and ventral surface of abdomen yellow, the fore tibiæ tinged with crimson above. Fore wing dark purple-brown from base along discal fold to end of cell and thence to termen above tornus, its outer edge angled at veins 4 and 3 and its upper edge expanding to

below the costa before middle, its upper and outer edges defined by crimson, the costal and apical areas yellow; a trilobate crimson edged subterminal patch between veins 7 and 1, the lobe above vein 5 more elongate; short crimson streaks on the extremities of the veins. Hind wing yellowish tinged with crimson. Underside yellow, the fore wing suffused with crimson except on costal area and on terminal area to submedian fold, the yellow on costa expanding into upper end of cell and as a postmedial band to vein 4, some brown beyond the fovea.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in Coll. Rothschild. *Exp.* 22 millim.

*2017 *g*. Paranerita irregularis. (Plate XLIV. fig. 17.)

Paranerita irregularis, Roths. Nov. Zool. xvi. p. 297 (1909).

♂. Head yellow; antennæ fuscous at middle and white at tips; thorax violaceous brown, the metathorax edged with crimson, the pectus and legs white; abdomen crimson, the extremity and ventral surface white. Fore wing violaceous brown; some crimson at base of inner margin, a quadrate patch at middle of inner margin extending to the gland with a yellow spot on it, conjoined to another triangular patch beyond it also with a yellow spot on it; a large oblique conical yellow patch from middle of costa to vein 2, with slight crimson mark before it on costa and crimson streak beyond it; a yellow apical patch and slight terminal band to submedian fold, minutely dentate at veins 6 and 5 and forming a triangular patch at vein 4. Hind wing crimson, the costal area yellow; the underside yellow tinged with crimson except on costal area.

Hab. Surinam, Maroewyn Valley, Aroewarwar Creek (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 22 millim.

2017 *h*. Paranerita amelia. (Plate XLIV. fig. 18.)

Hyponerita amelia, Schaus, A. M. N. H. (8) vii. p. 187 (1911).

♂. Head yellow with crimson line behind; palpi tinged with crimson except at tips, the 2nd joint brownish in front, the frons tinged with crimson at sides; thorax purplish brown, the tegulæ with crimson and yellow patches, the dorsum of thorax with crimson patch; pectus and legs yellow, the fore coxæ crimson; abdomen crimson, the extremity and ventral surface yellow. Fore wing purple-brown; some crimson on basal inner area; a yellow patch edged with crimson from middle of costa to submedian fold, narrowing below the cell; a crimson streak on postmedial part of costa; a yellow terminal band defined by crimson on inner side, expanding slightly at apex and into a triangular patch from vein 4 to above tornus. Hind wing yellow suffused with crimson.

Hab. Costa Rica, Sixola R. (*Schaus*), 1 ♂. *Exp.* 26 millim.

*2017 *i*. **Paranerita peninsulata.** (Plate XLIV. fig. 19.)

Paranerita peninsulata, Dogn. Hét. Nouv. Am. Sud. vii. p. 19 (1914).

♂. Head yellow; antennæ black with some crimson at base and yellow tips; thorax purple-brown; pectus and legs yellowish white; abdomen crimson, the anal tuft and ventral surface white. Fore wing purple-brown, the inner margin tinged with crimson; a rather oblique triangular yellow patch edged with black-brown from costa just beyond middle to vein 3, its inner edge indented; the termen yellow expanding into a patch from vein 3 to tornus and defined on inner side by black-brown, thus leaving a rounded subapical patch of the ground colour with crimson streak above it on the costa and slightly waved outer edge connected by an oblique isthmus with the basal area. Hind wing crimson.

Hab. Venezuela, Esteban Valley, Las Quiguas, type † ♂ in Coll. Dognin. *Exp.* 24 millim.

*2017 *j*. **Paranerita carminata.** (Plate LXI. fig. 24.)

Paranerita carminata, Schaus, Pr. U.S. Nat. Mus. xxix. p. 227 (1905).

♀. Head, thorax, and abdomen crimson, the last with dorsal white point at base and the extremity white; pectus, legs, and ventral surface of abdomen white, the fore legs crimson in front. Fore wing crimson with rather narrow yellow band from the costa just beyond middle to termen above tornus, white at costal edge and its outer edge somewhat excurved between veins 5 and 4. Hind wing yellow tinged with crimson.

Hab. Fr. Guiana, St. Jean Maroni, type † ♀ in U.S. Nat. Mus. *Exp.* 28 millim.

*2017 *k*. **Paranerita lophosticta.** (Plate XLIV. fig. 20.)

Paranerita lophosticta, Schaus, A. M. N. H. (8) vii. p. 614 (1911).

♂. Head and thorax crimson, a white band between antennæ which are brown except towards base; pectus and legs white, the fore legs tinged with crimson in front; abdomen crimson, a fan of white scales at base, the anal tuft and ventral surface white. Fore wing crimson slightly irrorated with brown; a small yellow antemedial spot on base of the fovea below the cell; an indistinct curved medial crimson line from origin of vein 2 to inner margin; a downcurved pale yellow fascia from costa beyond middle to termen above submedian fold, expanding towards the costa and at termen, constricted before the termen, its upper edge excurved below vein 5, crossed by a diffused crimson streak below the costa, and the costal edge white before it; cilia white at tips from apex to the fascia. Hind wing pale crimson. Underside of fore wing with the tuft of hair in the fovea white.

♀. Fore wing without the antemedial yellow spot, the yellow

fascia almost or quite interrupted by a crimson bar before termen; hind wing deeper crimson.

Hab. COSTA RICA, Sixola R. (*Schaus*), 1 ♂, 1 ♀. *Exp.* 34 millim.

*2017 *l.* Paranerita suffusa.

Paranerita suffusa, Roths. Nov. Zool. xvi. p. 298 (1909), & xvii. pl. 13. f. 3.

♂. Head yellow with scarlet line behind; palpi scarlet; frons with lateral scarlet bars; antennæ brown, scarlet at base; thorax yellow-brown; pectus, legs, and abdomen yellow, the legs tinged with scarlet above. Fore wing yellow-brown suffused with violaceous purple; a slight scarlet streak below base of costa; a dark point on inner edge of the fovea and scarlet point at its extremity; a large conical yellow patch edged with scarlet on middle of costa, its apex on vein 2; the costa scarlet towards apex; the termen yellow defined on inner side by scarlet to submedian fold, angled inwards and forming a triangular patch below vein 4. Hind wing yellow faintly tinged with scarlet except on inner area, the underside with the costal area suffused with scarlet except at base.

Hab. BR. GUIANA, Tumatumari (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 32 millim.

Subsp. *trinitatis*. Roths. Nov. Zool. xvi. p. 298 (1909), & xvii. pl. 13. f. 2.

♂. Vertex of head and tegulæ scarlet, the pro- and metathorax tinged with scarlet; legs deep scarlet; abdomen with slight dorsal line and the extremity tinged with scarlet; fore wing with the scarlet markings much more developed; a curved scarlet antemedial bar from the fovea to inner margin.

Hab. TRINIDAD, Caparo (*Klages*), type † ♂ in Coll. Rothschild.

*2017 *m.* Paranerita maculata.

Pareuia maculata, Roths. Nov. Zool. xvi. p. 36, pl. 5. f. 25 (1909).

♀. Head white slightly edged with crimson behind; palpi except the 1st joint crimson, brownish in front; antennæ brown; thorax pale red-brown; abdomen crimson; pectus, legs, and ventral surface of abdomen yellowish white. Fore wing pale red-brown; some crimson at base of inner margin; an incurved white spot slightly edged with crimson on the costa before middle, confluent with an excurved spot in the cell and an elliptical spot nearer the base below the cell; a curved white band slightly edged with crimson from middle of costa to submedian fold, formed by confluent spots on costa, at end of cell and below the cell; an elongate postmedial spot edged with crimson below vein 5; an apical spot, a subterminal spot above vein 6 confluent with a terminal spot below vein 6, and terminal spots below veins 4 and 3. Hind wing crimson with a terminal brown band narrowing to tornus; the underside yellow, the terminal band ending at vein 2.

Hab. BRAZIL, Up. Amazons, Fonte Boa (*Klages*), type † ♀ in Coll. Rothschild. *Exp.* 24 millim.

*2018 *a*. Paranerita granatina.

Neritos granatina, Roths. Nov. Zool. xvi. p. 292 (1909). & xviii. pl. 4. f. 6.
Paranerita postrosea, Roths. Nov. Zool. xxiv. p. 477 (1917).

Head yellow; palpi white at base; frons brown; antennæ brown with the basal joint yellow; thorax red-brown; pectus and legs white, the fore legs yellow, the femora crimson above; abdomen crimson, the extremity yellow, the ventral surface white. Fore wing red-brown tinged with purplish grey towards its outer edge, which is dark and sinuous and runs from costa before middle to tornus; the apical half of wing yellow with large round subapical purple-brown patch with slightly waved dark edges from just below the costa, on which there is a crimson streak, to above vein 4. Hind wing crimson, the base and costal area yellow; the underside crimson with large pale yellow patch below the costa from base to end of cell.

Hab. Venezuela, Caracas, type † ♂, ♀ *postrosea* in Coll. Rothschild, San Esteban Valley, Las Quiguas; Fr. Guiana, St. Jean Maroni; E. Bolivia, Buenavista (*Steinbach*), type † ♂ in Coll. Rothschild. *Exp.* 28 millim.

*2018 *b*. Paranerita inequalis.

Neritos inequalis, Roths. Nov. Zool. xvi. p. 292 (1909). & xviii. pl. 4. f. 7.

♂. Head purple-brown with yellow band between the antennæ defined by crimson bars in front and behind; palpi yellow tinged with crimson except in front towards base; antennæ brownish, crimson at base and white at tips, the basal joint yellow; thorax purple-brown with some crimson on upper edge of patagia towards tips; pectus and legs white; abdomen crimson with a fan of silvery white scales at base, the extremity yellow, the ventral surface white. Fore wing purplish red-brown to the costa before middle and thence with curved slightly waved outer edge defined by crimson to termen above tornus; some yellow and crimson at base of inner margin; the apical half yellow with a large round purplish red-brown subapical patch with waved crimson edges from just below the costa to vein 4. Hind wing yellow, the inner and terminal areas tinged with crimson; the underside with the costal area tinged with crimson.

Hab. Surinam, Maroewyn Valley, Aroewarwar Creek; Brazil, Up. Amazons, Codajas, Fonte Boa; Peru, Carabaya, R. Huacamayo, La Union; Bolivia, Junin Dept. Palcazu (*Sedlmayer*), type † ♂ in Coll. Rothshild, Cuzco, Cajan, Yungas de la Par, San Ernesto, Salampioni. *Exp.* 32 millim.

*2018 *c*. Paranerita androconiata.

Neritos androconiata, Roths. Nov. Zool. xvi. p. 293 (1909). & xviii. pl. 4. f. 35.

♀. Head yellow, the frons with brownish bar; antennæ brownish, yellow at base and white at tips; thorax grey-brown; pectus and

legs white, the fore femora tinged with crimson above; abdomen crimson, the extremity and ventral surface white. Fore wing grey-brown to costa before the middle and thence with sinuous outer edge to termen at submedian fold; some yellow at base of inner margin; the apical half of wing semihyaline yellow with a large round subapical brown patch tinged with purple-grey and edged with dark brown from just below the costa, on which there is a crimson streak, to just above vein 4, its edges slightly waved. Hind wing yellow tinged with crimson and with a brownish patch on terminal area from vein 3 to below vein 2; cilia yellow; the underside white with the brown patch on terminal area small.

Hab. Peru, Carabaya, R. Huacamayo, La Union (*Ockenden*), type † ♂ in Coll. Rothschild, Tinguri, R. Suambari, La Oroya. *Exp.* 22 millim.

*2018 *d.* Paranerita phæocrota. (Plate XLIV. fig. 21.)

Paranerita phæocrota, Dogn. Hét. Nouv. Am. Sud. iii. p. 14 (1911).

♂. Head yellow, the frons with brown bar; antennæ brown, white towards tips; thorax purplish brown; pectus and legs white, the fore femora tinged with crimson above; abdomen crimson, the 1st two segments with dorsal brown spots, the anal tuft and ventral surface white. Fore wing purplish brown to the costa before middle and thence to termen at submedian fold, the outer edge of this area angled at lower angle of cell, then sinuous; the apical half of wing pale semihyaline yellow with a large round purple-brown subapical patch with some crimson above it on costa and slightly sinuous outer edge. Hind wing yellowish, the inner half suffused with crimson and with large triangular brownish patch from termen to below end of cell. Underside of fore wing with the tuft of hair in the fovea white; hind wing yellow tinged with crimson.

Hab. Fr. Guiana, St. Jean Maroni (*Le Moult*), type † ♂ in Coll. Dognin. *Exp.* 26 millim.

*2018 *e.* Paranerita metapyria.

Paranerita metapyria, Dognin. Ann. Soc. Ent. Belg. li. p. 229 (1907); Roths. Nov. Zool. xvi. pl. 7. f. 23.

♂. Head and thorax whitish suffused with flesh-pink; palpi brown at tips; frons brown with white patch below; antennæ brown except the basal joint; back of head and stripes on shoulders brown; pectus and legs white, the fore legs tinged with flesh-pink in front; abdomen reddish orange, the anal tuft and ventral surface white. Fore wing with the basal area whitish suffused with flesh-pink and edged with brown on costa and outer edge, extending on the costa to before middle and thence obliquely to termen at submedian fold and slightly angled on the veins; a bright pink point at base below vein 1 and some white on inner margin; an oblique brown line from base of costa to inner margin followed by some faint whitish spots in submedian interspace; a faint maculate whitish

antemedial line slightly defined on each side by pinkish brown, oblique from the costa to just above middle of vein 1 where it is angled and followed by a faint whitish postmedial band from vein 2 to inner margin; the rest of wing pale yellow with a very large irregularly rounded subapical pinkish white patch edged with purplish brown extending from just below the costa, which is scarlet, to vein 4 and traversed by a dentate brownish line near its inner edge. Hind wing uniform reddish orange.

Hab. Fr. Guiana, St. Laurent Maroni, type† ♂ in Coll. Dognin. *Exp.* 40 millim.

2018*f*. **Paranerita bione.**

Paranerita bione, D. Jones, Trans. Ent. Soc. 1914, p. 12, pl. 1. f. 17.

♀. Head yellow with some scarlet behind, the palpi tinged with scarlet, the frons brown; antennæ brown with some scarlet and yellow at base and white tips; thorax pale red-brown, the patagia mostly white; pectus and legs yellow, the fore femora and tibiæ tinged with scarlet on inner side; abdomen scarlet, the ventral surface yellow. Fore wing purple-brown, the area below the cell suffused with whitish; a wedge-shaped yellow patch edged with scarlet on the costa from near base to beyond middle; the apex and termen yellow edged with scarlet, the latter expanding into a wedge-shaped patch from vein 5 to tornus, thus leaving a large elliptical subapical patch of the ground-colour with scarlet above it on the costa connected by a broad neck with the basal area. Hind wing pale scarlet with a diffused brownish fascia below the cell and vein 5 from near base to near termen; the underside yellow tinged with scarlet.

Hab. S. Brazil, Santos, Alto da Serra (*D. Jones*), 1 ♀, type† ♀ in Coll. D. Jones. *Exp.* 38 millim.

2018*g*. **Paranerita aurantiipennis.** (Plate XLIV. fig. 22.)

Paranerita aurantiipennis, Roths. A. M. N. H. (8) iv. p. 219 (1909).

Head and thorax flesh colour mixed with pale purplish brown, the vertex of head yellow; palpi white at base; antennæ brown, yellow at base and white at tips; pectus and legs white, the fore legs yellow above; abdomen yellow, the anal tuft and ventral surface white. Fore wing flesh colour to the costa before middle and thence with slightly sinuous outer edge to termen at submedian fold, suffused with brown towards the costa and outer edge and striated with brown beyond middle; a minute crimson subbasal point below the cell and medial line from submedian fold to inner margin angled outwards above vein 1; the apical half of wing yellow with a large round flesh-coloured subapical patch striated with brown and edged with brown from costa to vein 4, its outer edge waved, joined by an oblique bar to the basal area. Hind wing yellow

faintly tinged with crimson except on costal and inner areas; the underside yellow.

Hab. Br. Guiana (*Kaye*), 1 ♀; Brazil, Up. Amazons, Fonte Boa (*Klages*), type† ♂ in Coll. Rothschild. *Exp.* 36 millim.

2018. **Paranerita sithnides**, insert (syns.) :—

Neritos lavendulæ, Roths. Nov. Zool. xvi. p. 294 (1909), & xviii. pl. 4. f. 36.
Neritos lavendulæ meridionalis, Roths. Nov. Zool. xvi. p. 294 (1909).

Surinam, Maroewyne Valley, Aroewarwar Creek (*Klages*), type† ♀ *lavendulæ* in Coll. Rothschild; Brazil, Amazons, Fonte Boa; S. Brazil, type† ♂ *meridionalis* in Coll. Rothschild.

2018 *h*. **Paranerita orbifer.** (Plate XLV. fig. 3.)

Paranerita orbifer, Hmpsn. Nov. Zool. xxiii. p. 231 (1916).

♀. Head yellow; antennæ red-brown except at base; frons red-brown with white bar below; palpi yellow, crimson at tips; thorax red-brown; pectus and legs yellow, the fore tibiæ and femora tinged with crimson in front; abdomen crimson, the extremity and ventral surface yellowish white. Fore wing with the basal and inner areas purplish red-brown, extending on the costa to before middle, where there is some scarlet beyond it, then obliquely curved and sinuous to termen above tornus; the rest of wing pale yellow with a large round purplish red-brown subapical patch from below costa to below vein 5, some scarlet above it on costa. Hind wing yellow, the terminal area purplish red-brown from vein 3 to tornus. Underside of fore wing with the subapical patch extending to costa; hind wing wholly yellow.

Hab. Colombia, Choko Prov. Condoto (*Spurrell*). 1 ♀ type. *Exp.* 28 millim.

*2018 *i*. **Paranerita translucida.** (Plate LXV. fig. 8.)

Paranerita translucida, Roths. Nov. Zool. xxiv. p. 478 (1917).

♂. Head white, the back of head, antennæ, and palpi tinged with brown; thorax whitish brown; abdomen crimson, the anal tuft white; pectus and legs ochreous white; ventral surface of abdomen white. Fore wing whitish brown extending to the costa before middle and thence to termen above tornus, its outer edge excurved to lower angle of cell, the rest of wing semihyaline white with a yellowish tinge at costa and termen; a large rounded whitish brown apical patch extending to vein 4. Hind wing pale yellow with a large patch of whitish brown suffusion on terminal area between discal and submedian folds, extending to near end of cell.

Hab. Peru, Carabaya, R. Huacamayo, La Union (*Ockenden*), type† ♂ in Coll. Rothschild. *Exp.* 28 millim.

*2018*j*. Paranerita niobe. (Plate XLIV. fig. 23.)

Paranerita niobe, Schaus. A. M. N. H. (8) vii. p. 187 (1911).

♂. Head yellow; palpi tinged with crimson towards tips; frons violaceous brown; antennæ brown, white towards tips; thorax violaceous brown; pectus and legs yellow; abdomen crimson, the ventral surface yellow. Fore wing violaceous brown; some yellow tinged with crimson at base of inner margin; a yellow streak on medial part of costa expanding into a rounded patch on disco-cellulars and slightly edged with scarlet; a small yellow wedge-shaped spot on apical part of costa and a terminal series of conjoined lunulate spots expanding into a wedge-shaped patch below vein 4, slightly edged on inner side by scarlet. Hind wing yellow suffused with crimson except on costal area; the underside yellow, the inner half faintly tinged with crimson.

Hab. Costa Rica, Juan Vinas (*Schaus*), type † ♂ in U.S. Nat. Mus. *Exp.* 36 millim.

*2018*k*. Paranerita grandis.

Hyponerita grandis, Roths. Nov. Zool. xvi. p. 51. pl. 7. f. 20 (1909).

♀. Head and thorax dark reddish brown, the vertex of head with yellow patch; palpi yellow, brown towards tips; antennæ white at tips; pectus and legs yellow; abdomen crimson, the anal tuft yellow, the ventral surface white. Fore wing dark reddish brown; a conical yellow patch from middle of costa to just above lower angle of cell, slightly edged with crimson and expanding at costa, the costal edge beyond it yellow tinged with crimson, a triangular yellow patch on costa at apex; the termen with yellow spots slightly edged with crimson above and below vein 5 and a wedge-shaped patch with sinuous inner edge from vein 4 to just above tornus. Hind wing yellow.

Hab. Peru, Carabaya. S. Domingo (*Ockenden*), type † ♀ in Coll. Rothschild. *Exp.* 42 millim.

*2019*a*. Paranerita metapyrioides. (Plate LXV. fig. 9.)

Paranerita metapyrioides. Roths. Nov. Zool. xxiii. p. 266 (1916).

Hind wing of male with the costa strongly arched throughout, the tornus strongly lobed and the inner area on underside clothed with rough scales.

♂. Head and thorax pale yellow mixed with some rufous; antennæ tinged with brown; frons and palpi red-brown; abdomen deeper yellow; pectus, legs, and ventral surface of abdomen creamy white, the fore and mid legs yellow. Fore wing with the basal and inner areas to the costa before middle and termen at vein 2 violaceous white tinged with flesh colour shading to red-brown at the costa and its outer edge, which is defined by an orange line; two waved flesh-coloured antemedial lines from cell to inner margin

excurved above vein 1 and a faint diffused subterminal line ending at tornus; the apical half of wing pale yellow with a large rather irregularly rounded violaceous white subapical patch defined by red-brown and edged by orange-red from costa to vein 4. Hind wing deep yellow. Underside of fore wing with the basal area yellow defined by an oblique sinuous red-brown band, the rest of wing yellowish white with the subapical patch red-brown.

Hab. Colombia. Monte Tolima (*Fassl*), type † ♂ in Coll. Rothschild. *Exp.* 44 millim.

2019. **Paranerita polyxena**, insert :—

Hyponerita garleppi, Roths. Nov. Zool. xvi. p. 299 (1909). & xvii. pl. 13. f. 6.

A form with the yellow spot at middle of termen of fore wing reduced to some yellow on the cilia.

Hab. Bolivia, Cuzco, Cajon, type † ♂ in Coll. Rothschild.

*2019 *b*. **Paranerita rosacea.**

Neritos rosacea, Roths. Nov. Zool. xvi. p. 292 (1909), & xviii. pl. 4. f. 32.

♂. Head yellow, the frons and back of head with crimson bars; palpi crimson; antennæ crimson at base, brown at middle and white at tips, the basal joint yellow; thorax purplish crimson; pectus and legs yellow; abdomen crimson, a white point at base, the extremity and ventral surface yellow. Fore wing purplish crimson, extending on the costa to before middle and thence curved and slightly waved to termen at submedian fold, its outer edge crimson, some crimson at base of inner margin; the apical area yellow with a large round subapical purplish crimson patch extending from costa on which there is a crimson streak to vein 4, its edges slightly waved. Hind wing brown, the basal area yellow tinged with crimson, a slight crimson streak below the costa; the underside yellow tinged with crimson and suffused with brown except on costal and inner areas.

Hab. Venezuela, Palma Sol; Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 24 millim.

*2019 *c*. **Paranerita triangularis.**

Neritos triangularis, Roths. Nov. Zool. xvi. p. 293 (1909), & xviii. pl. 4. f. 34.

♂. Head crimson with a yellow band between antennæ, the back of head brownish; palpi white at base and yellow in front; antennæ brownish crimson at base and white in front; the basal joint yellow; thorax crimson tinged with brown, pectus and legs white, the fore legs yellow tinged with crimson in front; abdomen crimson with a fan of silvery white scales at base, the extremity yellow, the ventral surface white. Fore wing crimson tinged with brown to

middle of costa and thence with slightly sinuous outer edge defined by crimson to termen at submedian fold; a crimson streak on the costa except at base, some yellow defined by crimson above at base of inner margin and an oblique crimson striga above middle of vein 1; the apical half yellow with a large round subapical crimson patch tinged with brown and edged with crimson from just below costa to vein 4, its edges slightly waved. Hind wing yellow suffused with crimson except on costal area; cilia white; the underside yellow with the costal area suffused with crimson.

Hab. Br. Guiana, Potaro; Peru, Carabaya, R. Inambari, La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild, Cuzco, Chanchamayo, Huanuco, Pozuzo. *Exp.* 32 millim.

*2019 *d*. **Paranerita persimilis.** (Plate XLIV. fig. 24.)

Neritos persimilis, Roths. Nov. Zool. xvi. p. 293 (1909).

Head yellow with crimson bars on frons and back of head; palpi crimson except at base; antennæ crimson, brownish at middle and whitish at tips; thorax deep purplish red with a slight yellow mark on prothorax; abdomen crimson with a tuft of white scales at base and the anal tuft white; pectus, legs, and ventral surface of abdomen white. Fore wing deep purplish red, with some crimson at base of inner margin, a streak on basal half of costa, and small medial spot above vein 1; the apical half yellow from middle of costa to termen at submedian fold, the basal half being edged with crimson; a large round deep purplish red patch edged with crimson from costa towards apex to vein 4, its edges waved. Hind wing pale crimson, the cilia white.

Ab. 1. ♀. Fore wing with the subapical patch conjoined at vein 4 to the basal red area, dividing the yellow area into conical patches on costa and termen.

Hab. Surinam, Maroewyn Valley, Aroewarwar Creek (*Klages*); Peru, R. Inambari, La Oroya (*Ockenden*), type † ♂, ♀ in Coll. Rothschild. *Exp.* 28–30 millim.

*2019 *e*. **Paranerita perversa.** (Plate XLIV. fig. 25.)

Neritos perversa, Roths. Nov. Zool. xvi. p. 294 (1909).

♂. Head and thorax purplish crimson, the vertex of head yellow; antennæ crimson, brownish at middle and white at tips, the basal joint yellow, palpi yellow tinged with crimson; pectus and legs white, the fore tarsi tinged with pink at extremities; palpi crimson, a fan of white scales at base, the anal tuft yellow and the ventral surface white. Fore wing purplish crimson to the costa before middle and termen above tornus, its outer edge sinuous, some yellow at base of inner margin with a crimson point at extremity; the apical area yellow with a large round purplish crimson subapical patch from the costa on which there is a crimson streak to vein 4, its edges slightly waved. Hind wing yellow slightly tinged with crimson.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 22 millim.

*2019 *f.* **Paranerita occidentalis.** (Plate XLIV. fig. 26.)

Paranerita rosacea, Roths. Nov. Zool. xvi. p. 297 (1909) ♂, nec p. 292.
Paranerita rosacea occidentalis, Roths. Nov. Zool. xvi. p. 297 (1909) ♀.

♂. Head yellow with crimson band behind; palpi tinged with crimson; frons with crimson bar; antennæ brown, white at tips; thorax red-brown suffused with crimson; pectus and legs yellow; abdomen crimson, the extremity yellow, the ventral surface white. Fore wing red-brown suffused with crimson to the costa before middle and termen at submedian fold, its outer edge curved and edged with crimson, some crimson at base of inner margin and a striga at middle from submedian fold to below vein 1; the apical half of wing yellow with a large round red-brown subapical patch suffused with and edged by crimson, its outer edge minutely waved. Hind wing whitish suffused with crimson, the terminal half suffused with brown except on costal area.

♀. Fore wing with the markings more strongly edged with crimson and without the medial crimson striga; hind wing wholly whitish suffused with crimson.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ *rosacea* in Coll. Rothschild; Ecuador, Chimbo (*Rosenberg*), type † ♀ *occidentalis* in Coll. Rothschild. *Exp.* 24 millim.

*2019 *g.* **Paranerita flexuosa.** (Plate XLIV. fig. 27.)

Paranerita flexuosa, Schaus, A. M. N. H. (8) vii. p. 614 (1911).

♀. Head yellow; antennæ brown, white towards tips; thorax purple-brown; pectus and legs yellow; abdomen crimson, the anal tuft and ventral surface yellow. Fore wing purple-brown; some pale crimson at base of inner margin; an oblique conical yellow patch defined by blackish from middle of costa to below lower angle of cell, its inner edge angled at the discocellulars; the termen yellow defined on inner side by blackish, expanding into a patch at apex, then with its inner edge slightly waved, angled inwards below vein 5 and again below vein 3. Hind wing with the basal half pale crimson extending to tornus, the terminal half dark brown, the costa yellow expanding into a small patch at apex.

Hab. Costa Rica, Sixola R. (*Schaus*), type † ♀ in U.S. Nat. Mus. *Exp.* 28 millim.

*2019 *h.* **Paranerita peruviana.** (Plate XLIV. fig. 28.)

Paranerita peruviana, Roths. Nov. Zool. xvi. p. 297 (1909).

♂. Head yellow; palpi brown at tips; frons tinged with brown; antennæ brown, white at tips and with the basal joint yellow; thorax and abdomen brown; pectus, legs, and ventral surface of abdomen yellow, the tarsi brownish towards extremities. Fore wing brown; a conical yellow patch on middle of costa extending to

vein 3 beyond the cell where its apex is rather produced; an apical yellow spot, the termen then narrowly yellow with sinuous inner edge to above vein 1, where it expands into a patch ending at submedian fold and with its inner edge slightly excised. Hind wing yellow, the apical area tinged with brown; the underside with the costal area suffused with brown from before middle to apex.

♀. Fore wing with the conical patch at middle of costa ending above lower angle of cell, not produced at apex and widely separated from the terminal patch. Hind wing with the inner and terminal areas suffused with brown on upperside, the underside with some brown marks on terminal area.

Hab. PERU, R. Inambari, La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild, Carabaya, R. Huacamayo, La Union. *Exp.*, ♂ 28, ♀ 24 millim.

*2019 *i*. Paranerita polyxenoides.

Paranerita polyxenoides, Roths. Nov. Zool. xvi. p. 297 (1909), & xviii. pl. 4. f. 3.

Head yellow; palpi yellow and brown; frons and antennæ brown; thorax dark brown; pectus and legs yellow; abdomen crimson, the extremity and ventral surface yellow. Fore wing dark brown; some yellow at base of inner margin and a medial point on vein 1; a conical yellow patch on middle of costa extending to just above lower angle of cell, a crimson streak beyond it on the costa; the termen yellow, expanding at apex, its inner edge then waved to vein 4 where it is angled inwards. Hind wing yellow slightly tinged with crimson, the terminal area black, broad at costa and narrowing to tornus; the underside yellow, the inner edge of the dark terminal area sinuous and extending on costa to middle.

Hab. BR. GUIANA; BRAZIL, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild; PERU, Carabaya, R. Huacamayo, La Union. *Exp.* 26 millim.

*2019 *j*. Paranerita fenestrata.

Automolis fenestrata, Roths. Nov. Zool. xvii. p. 20, pl. 13. f. 35 (1910).

♂. Head, thorax, and abdomen yellowish white slightly tinged with red-brown; palpi pale scarlet behind; antennæ brownish; legs slightly streaked with brown. Fore wing yellowish white, the costal half suffused with red-brown, with some pale striæ on it, the inner half faintly mottled with red-brown; a faint semihyaline subbasal patch below the cell; a semihyaline patch beyond end of cell, its lower extremity produced between veins 5 and 4 and extending to vein 3; small yellowish spots at the extremities of the veins and a quadrate patch at extremity of vein 4. Hind wing yellowish white.

Hab. BRAZIL, Amazons, type † ♂ in Coll. Rothschild. *Exp.* 36 millim.

*2020 *a*. Hyponerita hamoia.

Hyponerita hamoia, Joicey, A. M. N. H. (8) xviii. p. 62, pl. 14, f. 21 (1916).

Antennæ of male bipectinate with rather long branches.

♂. Head and thorax red-brown tinged with purplish grey, a yellowish white patch above the frons and on vertex of head; pectus and legs white, the tarsi tinged with red-brown; abdomen crimson, a grey-brown dorsal spot on 1st segment, the anal tuft brown, the ventral surface white, tinged with brown towards extremity. Fore wing red-brown, suffused with purple-grey except on inner area; a conical pale yellow patch from costa to lower angle of cell, slightly edged with crimson and produced on costa towards base and apex; a pale yellow spot at apex and a lunulate terminal band except at tornus expanding into a patch below vein 4, the spot and band slightly defined on inner side by crimson. Hind wing yellowish white with a faint crimson tinge on inner half. Underside of fore wing with some crimson on basal part of costa, the inner area pinkish white.

Hab. Colombia, Choko, La Silva, San Juan, type † ♂ in Coll. Joicey. *Exp.* 32 millim.

2020 *b*. Hyponerita pinon. (Plate XLIV. fig. 32.)

Automolis pinon, Druce, A. M. N. H. (8) viii. p. 138 (1911).

Head and thorax yellow with some pink suffusion at tips of patagia and on metathorax; palpi pink towards base; antennæ fulvous yellow, the branches brown; abdomen yellow with diffused pink dorsal line. Fore wing pink with a slight purplish tinge on costal area and on postmedial area to vein 3; a rounded medial yellow patch on inner area; a rounded yellow discoidal patch with a spot above it on costa; the terminal area yellow from just below apex to submedian fold, expanding somewhat below. Hind wing yellow.

Hab. S. Brazil, Alto da Serra Santo (*D. Jones*), 1 ♂ (*Kaye*). type † ♀ in Coll. Joicey. *Exp.* 40 millim.

*2020 *c*. Hyponerita similis.

Hyponerita similis, Roths. Nov. Zool. xvi. p. 299 (1909), & xviii. pl. 4, f. 4.

♂. Head and thorax crimson; yellow bars on frons and between antennæ which are white at tips; tegulæ yellow, crimson at base; patagia with yellow patches at base; pectus and legs whitish, the tibiæ and fore tarsi at extremities suffused with crimson; abdomen crimson, the ventral surface whitish. Fore wing, long and narrow, scarlet tinged with brownish and with yellow markings strongly defined by scarlet; an irregular subbasal patch from costa to submedian fold and streak on base of inner margin; an oblique antemedial band with waved inner edge and slightly sinuous outer edge; an oblique band with waved edges from costa beyond middle to

termen between veins 1 and 2, with scarlet spots on it at vein 1 and termen, its inner edge giving off hooks upwards and downwards beyond lower angle of cell; small postmedial spots below vein 2 and above inner margin; a dentate subterminal bar from above vein 7 to above vein 5 where it is connected with a terminal spot; a small terminal spot below apex and hooks above veins 4 and 1. Hind wing pale yellow, the termen tinged with crimson; the underside with the costal area suffused with crimson.

♀. Pectus and legs more suffused with crimson; fore wing with some slight yellow spots before the middle of the postmedial band instead of the hooks from its inner edge, the terminal yellow band more entire with a series of scarlet spots on it; hind wing entirely tinged with crimson on upper side.

Hab. Br. Guiana, Potaro, Omai; Surinam, Maroewym Valley, Aroewarwar Creek; Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 28 millim.

*2020 *d*. Hyponerita persimilis.

Hyponerita persimilis, Roths. Nov. Zool. xvi. p. 299 (1909), & xviii. pl. 4. ff. 1, 37.

♂. Head and thorax crimson; yellow bands on frons and between antennæ which are crimson at base, brown at middle and white at tips; tegulæ yellow, crimson at base; patagia yellow at base, the tips and metathorax with brown patches; pectus and legs yellow tinged with crimson; abdomen crimson, the ventral surface yellow. Fore wing brown with yellow markings strongly defined by scarlet; a subbasal irregular patch from costa to submedian fold and streak on base of inner margin; an irregular antemedial band, expanding at costa, constricted at median nervure, then with waved inner edge; scarlet spots below costa and just beyond end of cell, below base of vein 3 and on vein 1; a triangular postmedial patch from costa, a patch between veins 5 and 2 conjoined to the terminal band and spots above and below vein 1; a terminal yellow band, its inner edge incurved below vein 7 and at vein 2 and with series of scarlet spots on the termen. Hind wing yellow faintly tinged with crimson at termen.

♀. Fore wing with the antemedial band not constricted at median nervure; hind wing crimson above, pale crimson below.

Ab. 1. ♂. Hind wing wholly suffused with crimson.—Br. Guiana.

Hab. Br. Guiana, Potaro; Brazil, Up. Amazons, Fonte Boa; Peru, Carabaya, S. Domingo, R. Huacamayo (*Ockenden*), type † ♂ in Coll. Rothschild, R. Inambari, La Oroya. *Exp.*, ♂ 26, ♀ 32 millim.

*2020 *e*. Hyponerita interna. (Plate XLIV. fig. 29.)

Hyponerita interna, Schaus, Pr. U.S. Nat. Mus. xxix. p. 228 (1905).

♀. Head and thorax deep purple-grey; palpi at base and basal joint of antennæ white tinged with pink; patagia crimson at tips; pectus and legs white; abdomen dorsally scarlet, ventrally white.

Fore wing deep purple-grey with a large yellow patch suffused with scarlet on basal half of inner margin extending to the cell, the apical area from middle of costa to termen above tornus pale yellow edged with scarlet with somewhat triangular scarlet-edged purple patch on apical part of costa extending to below vein 5. Hind wing yellow suffused with scarlet, most deeply on marginal areas; veins 6–7 shortly stalked.

Hab. Fr. Guiana, St. Jean Maroni, type † ♀ in U.S. Nat. Mus. *Exp.* 36 millim.

*2020*f.* Hyponerita lucens. (Plate XLIV. fig. 30.)

Hyponerita lucens, Schaus, Pr. U.S. Nat. Mus. xxix. p. 228 (1905).

♂. Head and thorax red-brown tinged with grey; palpi crimson above; basal half of antennæ crimson; metathorax dark brown at middle, tinged with crimson at sides; pectus and legs white, the fore and mid tibiæ yellow in front; abdomen fulvous yellow tinged with crimson on dorsum and with white spot at base, the ventral surface white. Fore wing red-brown suffused with purple; a crimson streak below base of costa; some dark irroration on basal inner area and black marks before and beyond the fovea; a broad yellowish hyaline band from costa just beyond middle to termen between vein 4 and submedian fold. Hind wing hyaline yellow, the costal area tinged with crimson on underside.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 30 millim.

*2020*g.* Hyponerita clagesi.

Paranerita klagesi, Roths. Nov. Zool. xvi. p. 51, pl. 7. f. 22 (1909).

♂. Head yellow, the frons with brown bar; antennæ brown, white at tips; tegulæ and front part of thorax dark brown, the hinder half yellow; pectus and legs yellow, the fore femora faintly tinged with crimson above; abdomen yellow, the anal tuft and ventral surface white. Fore wing dark purplish brown; an antemedial patch of rough silvery white scales above and below vein 1, its inner edge bidentate; a yellow spot on middle of vein 1 with some whitish suffusion round it; a large conical yellow patch from middle of costa to vein 3, its inner edge indented by a brown striga on the discocellulars, the costa beyond it tinged with crimson; a postmedial patch of whitish suffusion from vein 8 to below 6 intersected by the dark veins; a yellow patch on apical part of termen and a large wedge-shaped patch with sinuous inner edge from vein 5 to above tornus. Hind wing yellow with a brown patch on termen angled inwards at vein 1.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

*2020 *h*. Hyponerita viola. (Plate XLIV. fig. 31.)

Hyponerita viola, Dogn. Ann. Soc. Ent. Belg. liii. p. 220 (1909).

♀. Head and thorax violaceous white mixed with purplish brown; palpi yellow at base; antennæ brown, white at tips; abdomen yellow; pectus and ventral surface of abdomen white; fore femora above, tibiæ and tarsi yellow. Fore wing with the basal area violaceous white mixed with purplish brown, its outer edge defined by crimson and running obliquely from middle of costa to termen at vein 2; a crimson streak on inner margin towards base; traces of brownish antemedial and medial lines; the apical half yellow with a large rounded violaceous white subapical patch edged with blackish and crimson. Hind wing yellow. Underside of fore wing with the dark areas blackish brown.

Hab. Fr. Guiana, St. Laurent Maroni, type † ♀ in Coll. Dognin. *Exp.* 34 millim.

2020 *h*. Hyponerita tipolis.

Neritos tipolis, Druce, A. M. N. H. (6) xviii. p. 39 (1896); id. Biol. Centr.-Am., Hét. ii. p. 367, pl. 73, f. 27.

Hyponerita viola borealis. Roths. Nov. Zool. xvi. p. 298 (1909). & xvii. pl. 13, f. 1.

Antennæ of male serrate; fore wing with the fovea and tuft short. Hind wing with the costa strongly lobed to one half, the apical area obliquely truncate to vein 5.

Head and thorax violaceous, the vertex of head with large yellow patch; palpi at base yellow; pectus, legs, and abdomen orange-yellow. Fore wing violaceous to the costa just before middle and

Fig. 28.—*Hyponerita tipolis*. ♂. ½.

thence with a slight curve to termen just below vein 2, the outer edge of this area darker; the rest of wing yellow with a large round subapical patch with darker edges. Hind wing yellow.

Hab. Guatemala, type † ♀ in Coll. Staudinger. Costa Rica, Carthago (*Underwood*), type † ♀ *borealis* in Coll. Rothschild, Juan Viñas (*Schaus*), 2 ♂, 2 ♀, Sitio (*Schaus*), 1 ♀. *Exp.* 38 millim.

2020 *i*. Hyponerita rhodocraspis.

Hyponerita rhodocraspis, Hmpsn. A. M. N. H. (8) iv. p. 364 (1909).

Fore wing of male without elliptical patch of androconia below the cell: hind wing with the costa not lobed; hind femora and tibiæ and proximal joints of tarsi with thick tufts of hair and scales on outer side.

♂. Head yellow; palpi scarlet at sides; lower part of frons and points above the eyes scarlet; antennæ brown, the shaft scarlet at base; thorax deep chocolate-brown, the prothorax with scarlet point; pectus and legs yellow, the fore tibiæ with scarlet streak on inner side; abdomen yellow with dorsal series of crimson patches except at extremity and purple-brown patch near extremity. Fore wing purple-brown with a large yellow antemedial patch on costa extending

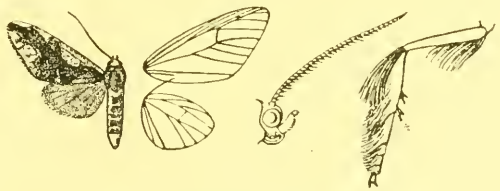

Fig. 29.—*Hyponerita rhodocraspis*, ♂. ½.

to median nervure and two narrower patches towards apex, all defined by scarlet below; the terminal area with semi-elliptical patch from just below apex to tornus defined by scarlet on inner side, indented at vein 6 by the purple-brown area being angled outwards, a rather triangular scarlet subbasal patch on inner area; an oblique medial bar and erect postmedial bar from submedian fold to inner margin. Hind wing yellow, the termen slightly tinged with scarlet from apex to just below vein 2; the underside with small brown patch at apex.

♀. Abdomen brown except the basal segment; fore wing without scarlet bars on inner medial area; hind wing brown.

Hab. Colombia, Choko Prov., Condoto (*Spurrell*), 1 ♀; S.E. Peru, La Oroya (*Ockenden*), 1 ♂, type. *Exp.* 32 millim.

*2020 *j*. Hyponerita incerta. (Plate XLV. fig. 4.)

Hyponerita incerta, Schaus, Pr. U.S. Nat. Mus. xxix. p. 229 (1905).

♂. Head and thorax brown tinged with crimson; palpi crimson above; antennæ yellow at tips; abdomen brown, crimson at base and yellow at extremity; pectus, legs, and ventral surface of abdomen yellow. Fore wing dark red-brown; some crimson at base of inner margin and a crimson bar from vein 2 to middle of inner margin; a semicircular yellow patch on the costa just before middle

and a smaller patch beyond middle, both edged with crimson; the costa crimson towards apex; the termen yellow expanding below vein 5 into a triangular patch. Hind wing yellow tinged with crimson.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 30 millim.

2020 *k*. Hyponerita carinaria. (Plate XLV. fig. 5.)

Hyponerita carinaria, Schaus, Pr. U.S. Nat. Mus. xxix. p. 229 (1905).

♂. Head and thorax brown strongly tinged with crimson; palpi crimson above; vertex of head yellow; antennæ yellow at tips; abdomen brown tinged with crimson; pectus, legs, and ventral surface of abdomen yellow. Fore wing red-brown tinged with crimson; some yellow at base of inner margin; a semicircular yellow patch on the costa just before middle and a small spot beyond middle, both edged with crimson; the termen yellow, expanding into a triangular patch below vein 5. Hind wing yellow.

♀. Fore wing with the inner edge of the triangular patch on termen indented at vein 3; hind wing suffused with crimson except at base and on costal area to beyond middle.

Hab. Fr. Guiana, St. Laurent Maroni (*Schaus*), 1 ♀, type † ♂ in U.S. Nat. Mus. *Exp.* 30 millim.

*2020 *l*. Hyponerita occendeni.

Hyponerita ockendeni, Roths. Nov. Zool. xvi. p. 298 (1909). & xvii. pl. 13. f. 5, ♂.

Hyponerita ockendeni posterior, Roths. Nov. Zool. xvi. p. 298 (1909). & xvii. pl. 13. f. 4, ♀.

Antennæ of male with serrations ending in bristles; fore wing without fovea; hind wing with the inner area clothed with rough scales above and below, the tornus lobed.

♂. Head yellow; palpi and antennæ brown except the basal joints; a slight scarlet line at back of head; thorax red-brown;

Fig. 30. *Hyponerita occendeni*. ♂. ½.

pectus, legs, and abdomen ochreous white, the last dorsally tinged with scarlet. Fore wing red-brown; some whitish edged with scarlet at base of inner margin and a slight antemedial scarlet point above vein 1; a large conical yellow patch edged with scarlet at middle of costa where its base is produced to slight streaks, its apex at

lower angle of cell; small, rather elongate, postmedial and subterminal yellow spots on the costa slightly edged with scarlet and a minute scarlet medial spot in discal fold; the termen yellow from just below apex to vein 2, slightly edged on inner side by scarlet, somewhat angled inwards at vein 6 and strongly below vein 5, its lower part forming a wedge-shaped patch. Hind wing ochreous white.

♀. Hind wing brown, the costal area, inner margin, and cilia ochreous white; the underside ochreous white tinged with brown except towards costa.

Hab. Venezuela, Caura R., La Union (*Klages*), type † ♀ *posterior*; Peru, R. Inambari, La Oroya, type † ♂ in Coll. Rothschild. *Exp.*, ♂ 30, ♀ 38 millim.

2020 *m*. Hyponerita declivis. (Plate XLV. fig. 6.)

Hyponerita declivis, Schaus, Pr. U.S. Nat. Mus. xxix. p. 229 (1905).

♂. Head and thorax brown; frons with crimson bar; vertex of head yellow; abdomen brown tinged with crimson, the extremity yellow; pectus, legs, and ventral surface of abdomen yellow. Fore wing greyish brown; some yellow at base of inner margin; a semicircular yellow patch on the costa just before middle and small spot beyond middle, both slightly edged with crimson; the termen yellow, expanding below vein 5 into a triangular patch. Hind wing yellow.

Hab. Fr Guiana, St. Jean Maroni, type † ♂ in U.S. Nat. Mus.; Brazil, São Paulo, 1 ♂. *Exp.* 26 millim.

*2020 *n*. Hyponerita furva. (Plate XLV. fig. 7.)

Hyponerita furva, Schaus, Pr. U.S. Nat. Mus. xxix. p. 228 (1905).

♂. Head, thorax, and abdomen brown; palpi at base, pectus, legs, and ventral surface of abdomen yellowish; fore femora tinged with crimson on inner side. Fore wing reddish brown; a wedge-shaped yellow patch on termen from above vein 1 to above tornus. Hind wing reddish brown, the costal area and inner margin yellowish.

Hab. Surinam, Surinam R., Geldersland, type † ♂ in U.S. Nat. Mus. *Exp.* 26 millim.

Genus HAPLONERITA.

Type.

Haplonerita, Hmpsn. A. M. N. H. (8) viii. p. 411 (1911) . . . . . *simplex*.

Proboscis fully developed; palpi upturned, slender, reaching to about middle of frons which is smooth; eyes large, round; antennæ of male bipectinate with very short branches to beyond middle, the apical part with bristles and cilia; hind tibiæ with two pairs of spurs. Fore wing triangular; veins 3, 4, 5 from angle of cell; 6 from upper angle; 7, 8, 9 stalked. 10 arising from

cell and anastomosing with them to form an areole; 11 from cell; the male with elongate fovea below middle of cell with tuft of hair in it on underside. Hind wing with veins 3 and 5 stalked, 4 absent: 6, 7 from upper angle: 8 strongly curved from middle of cell, the costa highly arched.

In key differs from *Neritos* in the fore wing having vein 10 anastomosing with 7, 8, 9 to form an areole.

*2020 *o*. Haplonerita simplex.

Idalus simplex, Roths. Nov. Zool. xvi. p. 23, pl. 4. f. 10 (1909).

♂. Head and thorax crimson tinged with brown; palpi crimson; antennæ with the basal half crimson, then brown, and the apex whitish; pectus and legs crimson; abdomen crimson with some pale hair at base. Fore wing crimson tinged with brown, the

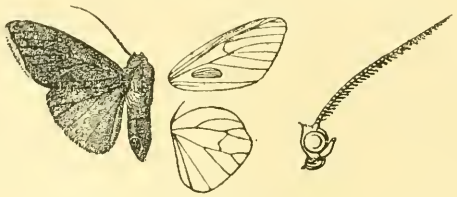

Fig. 31.—*Haplonerita simplex*, ♂. ½.

costal edge bright crimson; a bright crimson line just before termen, which is narrowly yellow except at apex and tornus; cilia yellow. Hind wing pale crimson, the cilia whitish except towards apex; the underside with the costal area deeper crimson.

Hab. Surinam, Maroewyn Valley, Aroewarwar Creek (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

Genus **SYNTOMOSTOLA**.

Type.

Syntomostola, Dogn. Hét. Nouv. Am. Sud, v. p. 11 (1912) ... *xanthosoma*.

Proboscis fully developed; palpi upturned, slender, the 2nd joint reaching to vertex of head, the 3rd short; antennæ of male with bristles and cilia; build slender; tibiæ with the spurs short; abdomen smoothly scaled, long. Fore wing long and narrow, the apex produced, the termen obliquely curved; vein 3 from well before angle of cell; 4, 5 from angle; the discocellulars oblique; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with the cell very short; vein 2 from angle; 3 and 5 strongly stalked, 4 absent; 6, 7 coincident; 8 from middle of cell; the tornus produced to a lobe.

In key differs from *Neritos* in the hind wing having the cell very short with vein 2 from its angle.

*1512 *a*. Syntomostola xanthosoma.

Syntomostola xanthosoma, Dogn. Hét. Nouv. Am. Sud, v. p. 11 (1912).

♂. Head and thorax black; palpi with the 2nd joint whitish in front towards tip; abdomen orange-yellow with some black at

sides at base. Fore wing hyaline, the veins and margins black; an oblique black discoidal bar; the terminal band expanding towards apex and below vein 2. Hind wing hyaline, the veins

Fig. 32. — *Syntomostola xanthosoma*, ♂. ½.

black; the margins broadly black, the tornal area very broadly black below vein 2; the underside with the inner area white, a slight blackish bar above tornus.

Hab. Colombia, Medina (*Fassl*), type † ♂ in Coll. Dognin. *Exp.* 32 millim.

1543. Neritos macrostidza.

Neritos onytes, Hmpsn. Cat. Lep. Phal. B. M. iii. p. 177 ♂ (nec Cram.).
Neritos macrostidza, Hmpsn. A. M. N. H. (7) xv. p. 113 (1905).

♀. Similar, except for the secondary sexual characters.

Hab. Fr. Guiana (*Schaus*), 1 ♀; Brazil, Amazons, R. Jutahi (*Trail*), 1 ♂ type. *Exp.* 28 millim.

1543 *a*. Neritos onytes.

Noctua onytes, Cram. Pap. Exot. ii. pl. 165. f. E (1777). ♀; Hmpsn. Cat. Lep. Phal. B. M. iii. p. 177, ♀ (nec ♂).
Sphinx psamas, Cram. Pap. Exot. iii. pl. 234. f. G (1779) ♂.

Antennæ of male bipectinate with moderate branches to near

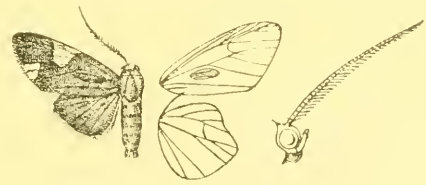

Fig. 33. — *Neritos onytes*, ♂. ½.

apex; fore wing with the fovea elongate; hind wing with the costa strongly lobed to half length of wing, then excised.

♂. Fore wing with the yellow patches on costa and termen confluent or separate; hind wing in both sexes brown.

Hab. Panama, Chiriqui; Br. Guiana, Rockstone (*Kaye*), 1 ♀; Fr. Guiana, St. Laurent Maroni (*Schaus, Le Moult*), 7 ♂, 2 ♀, St. Jean Maroni (*Schaus*), 1 ♀; Bolivia, Songo; Peru, Chanchamayo. *Exp.* 30–34 millim.

1544. **Neritos repanda**, insert (syn.):

Paranerita diversa, Roths. Nov. Zool. xxiv. p. 478 (1917).

Venezuela, Esteban Valley (*Klages*), type† ♂, ♀ in Coll. Rothschild, Merida.

*1544 *a*. **Neritos metaleuca.** (Plate XLV. fig. 8.)

Neritos metaleuca, Dogn. Hét. Nouv. Am. Sud. iii. p. 13 (1911).

♂. Head and thorax purplish brown, the vertex of head with yellow patch; palpi yellow, tinged with crimson at tips; antennæ white towards tips; pectus and legs white; abdomen crimson with white dorsal point at base, the anal tuft and ventral surface white. Fore wing purple-brown to the costa before middle and thence with slightly sinuous outer edge defined by crimson to termen at submedian fold; the apical half of wing pale yellow with a large round subapical purple-brown patch with slightly waved edges defined by crimson. Hind wing semihyaline white. Underside of fore wing white with some brown above the costal lobe of hind wing and the subapical patch brown.

Hab. Venezuela, Merida, type† ♂ in Coll. Dognin. *Exp.* 30 millim.

*1544 *b*. **Neritos chrysozona.**

Neritos chrysozona, Schaus, Pr. U.S. Nat. Mus. xxix. p. 226 (1905).

♂. Antennæ with serrations ending in a bristle; fore wing with the fovea short; a slight longitudinal fold beyond upper angle of cell and dilation of the costa above it, vein 10 bent downwards and approximated to 7, 8, 9, then curved upwards to costa; vein 11 curved upwards to the costa; hind wing with the costal lobe about half length of wing.

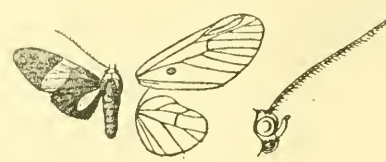

Fig. 34.—*Neritos chrysozona*, ♂. ½.

Head orange, the palpi above, antennæ, and spots on frons and vertex of head dark brown; thorax brown, the base of tegulæ and shoulders orange; pectus and legs grey-brown; abdomen black-brown, the extremity paler, the ventral surface whitish. Fore wing black-brown, the veins, submedian fold, and inner margin streaked with yellow on basal area; a broad golden yellow band from middle

of costa to inner margin near tornus. Hind wing black with broad golden yellow fascia from cell near base to above tornus, its extremity rounded.

Hab. Fr. Guiana, Maroni R., type † ♂ in U.S. Nat. Mus. *Exp.* 28 millim.

1544 *c*. Neritos discobola.

Neritos discobola, Hmpsn. A. M. N. H. (7) xv. p. 444 (1905).

Antennæ of male serrate and fasciculate; fore wing with the fovea elongate; veins 10, 11 from cell; hind wing with the costa strongly lobed.

Head yellow; thorax brown; pectus and legs yellow; abdomen scarlet, the base, anal tuft, and ventral surface yellow. Fore wing with the basal area purple-brown from one-third of costa to tornus,

Fig. 35.—*Neritos discobola*, ♂. ½.

its outer edge angled at lower angle of cell and vein 3; some crimson at base of inner margin; the apical half yellow with a large round purple-brown subapical patch, with some crimson above it on the costa, its outer edge waved. Hind wing crimson.

Hab. Venezuela, Aroa, 1 ♂, 1 ♀ type. *Exp.*, ♂ 24, ♀ 26 millim.

1544 *d*. Neritos odorata.

Paranerita odorata, Roths. A. M. N. H. (8) iv. p. 229 (1909); id. Nov. Zool. xvii. pl. 12. f. 12.

Antennæ of male with cilia and bristles; fore wing with the fovea elongate, veins 10, 11 stalked; hind wing with the costa strongly lobed.

Fig. 36.—*Neritos odorata*. ♂. ½

♂. Head yellow, the frons and back of head brown; antennæ brown, yellow at base and white at tips; thorax greyish brown; pectus and legs yellow; abdomen crimson, the extremity and ventral

surface yellow. Fore wing with the basal area red-brown, extending on the costa to before middle and thence to termen above tornus, its outer edge darker and angled at the discocellulars and vein 3; some crimson at base of inner margin and a small blackish spot on the inner edge of the band; the rest of wing yellow with a large round red-brown patch below apex edged with blackish and with the costa above it crimson. Hind wing yellow slightly tinged with crimson. Underside of fore wing with the basal area yellow with dark brown on its outer edge, the subapical patch dark brown; hind wing yellow.

Hab. Brazil, Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 26 millim.

*1544*e*. Neritos eximia.

Neritos eximius, Roths. Nov. Zool. xvii. p. 186, pl. 14. f. 36 (1910).

Antennæ of male with bristles and cilia; fore wing with the fovea long.

♂. Head and thorax black-brown, the tegulæ and patagia with broad crimson stripes; coxæ pale crimson; abdomen deep crimson, the extremity black-brown with an orange dorsal spot on anal segment, the ventral surface pale crimson with the terminal segments black-brown, the anal tuft ochreous except at tip. Fore

Fig. 37.—*Neritos eximia*, ♂. ½.

wing black-brown with a deep crimson patch below and beyond the fovea; hyaline patches between bases of veins 5 to 2 and slight semi-hyaline streaks between bases of veins 7 to 5. Hind wing black-brown with the area below and beyond end of cell hyaline, the inner area deep crimson to near tornus. Underside of fore wing with the fovea and tuft yellow.

Hab. Peru, La Oroya, R. Inambari (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 26 millim.

1544*f*. Neritos discophora. (Plate XLV. fig. 9.)

Neritos discophora, Hmpsn. Nov. Zool. xxiii. p. 231 (1916).

Hind wing of male with the costa lobed to about three-fourths of wing; fore wing with veins 10, 11 stalked, an elongate fovea below the cell; antennæ pectinate.

Head, tegulæ, and shoulders orange, the antennæ, except at base, and thorax grey-brown; palpi black at tips; abdomen orange, the

ventral surface ochreous yellow. Fore wing pale grey-brown, the veins streaked with fuscous brown; a rather oblique elliptical white patch beyond the cell between veins 6 and 3. Hind wing grey-brown with a rather ill-defined white patch in, below and beyond end of cell, the inner area whitish in male. Underside of fore wing darker grey-brown, except the white patch; hind wing with the basal and inner areas white.

Hab. Peru, Carabaya, R. Huacamayo, La Union (*Ockenden*), 2 ♂, 1 ♀ type. *Exp.* 40 millim.

1544 *g*. Neritos sorex.

Neritos sorex, Druce, A. M. N. H. (7) ix. p. 323 (1902).

♂. Head, tegulæ, and front of patagia and thorax orange, antennæ and rest of thorax brown; pectus, legs, and abdomen

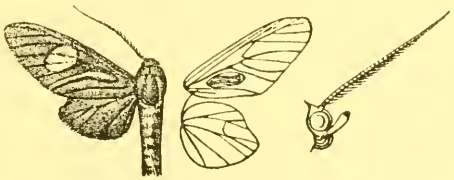

Fig. 38. *Neritos sorex*, ♂. ½.

orange. Fore wing pale grey-brown with oblique elliptical hyaline patch beyond the cell between veins 6 and 3. Hind wing pale grey-brown, the costal area whitish.

Hab. Peru, Chaquimayo (*Watkins*), 2 ♂; Bolivia, Mapiri San Ernioto, type † ♂ in Coll. Joicey. *Exp.* 42 millim.

1544 *h*. Neritos leucoplaga. (Plate XLV. fig. 10.)

Neritos leucoplaga, Hmpsn. A. M. N. H. (7) xv. p. 444 (1905).

Pale ochreous brown; vertex of head orange-yellow; fore coxæ yellow; abdomen with segmental yellow lines on terminal segments, the anal tuft yellow, the ventral surface pale. Fore wing with pale rounded patch beyond the cell between veins 6 and 3; the veins slightly darker. Hind wing paler. Underside of fore wing with the basal area pale, a yellowish fascia below costa, a slight discoidal lunule.

Hab. Fr. Guiana, St. Laurent Maroni (*Schaus*), 1 ♂ type, type ♀ in U.S. Nat. Mus. *Exp.*, ♂ 36, ♀ 38 millim.

1544 *i*. Neritos holophæa. (Plate XLV. fig. 11.)

Neritos holophæa. Hmpsn. A. M. N. H. (7) xv. p. 444 (1905).

Head, thorax, and fore wing uniform dark purple-grey; abdomen and hind wing bluish fuscous, the tuft in fovea of male pure white.

Hab. Fr. Guiana, St. Laurent Maroni (*Schaus*), 1 ♂ type, type ♀ in U.S. Nat. Mus. *Exp.* 34 millim.

1546. **Neritos pandera**, insert (syn.):—

Paranerita ampla, Dogn. Hét. Nouv. Am. Sud. iii. p. 14 (1911).

Fr. Guiana, St. Laurent Maroni (*Le Moult*), type † ♂ in Coll. Dognin.

*1546 *a*. Neritos purpureotincta.

Neritos purpureotincta, Joicey, P. Z. S. 1917. p. 269, pl. 1. f. 13 (1918).

♂. Head and thorax greyish tinged with chocolate-brown, the metathorax deep chocolate with oblique crimson streaks at sides; antennæ dark brown with some crimson at base; abdomen pale crimson with a white spot at base of dorsum and the anal tuft white at tip; palpi scarlet, white in front towards base, the base of 3rd joint brown; pectus, legs, and ventral surface of abdomen white, the fore legs yellow in front. Fore wing purple-grey tinged with chocolate-brown to middle of costa and to termen above tornus, its outer edge oblique and faintly edged with scarlet; a scarlet streak below costa, and some scarlet at base of inner margin; the gland defined at sides by dark brown and with a scarlet point before it; an ill-defined waved dark brown medial line from subcostal nervure to inner margin with some scarlet suffusion on its inner side and another dark line beyond it below the submedian fold; the rest of wing nacreous white with an ochreous tinge at costa and on cilia; an elliptical apical patch purple-grey at middle and scarlet at edges, extending to vein 4. Hind wing whitish tinged with pale brownish crimson especially on inner area. Underside of fore wing with the basal area crimson at costa and outer edge, the rest of it whitish with some dark brown in the cell, the gland and a patch beyond it pure white, the apical patch crimson with three conjoined elongate dark brown spots on it in the interspaces and some dark brown at apex. Hind wing with the costa crimson.

Hab. Fr. Guiana (*Le Moult*), type † ♂ in Coll. Joicey. *Exp.* 30 millim.

*1546 *b*. Neritos abdominalis.

Nerita abdominalis, Roths. A. M. N. H. (8) iv. p. 228 (1909), & Nov. Zool. xviii. pl. 6. f. 17.

♂. Head yellow, the antennæ grey, yellow at base and whitish at extremity; thorax grey; fore coxæ yellow, the base of legs clothed with rough yellow scales; abdomen grey-brown, the terminal half and ventral surface yellow. Fore wing brownish grey with grey-white streaks on the veins and in discal and submedian folds; a diffused whitish patch below lower angle of cell. Hind wing pale brown with a greyish tinge, the inner margin whitish; the underside with the whole inner area whitish.

Hab. Brazil, Upper Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

1546 *c*. Neritos phæoplaga.

Neritos phæoplaga, Hmpsn. A. M. N. H. (7) xv. p. 445 (1905).

Antennæ of male with bristles and cilia; fore wing with veins 10, 11 stalked, the fovea elongate; hind wing with the costa moderately lobed.

♂. Head yellow; frons brown; thorax dark brown; pectus and legs white, the fore coxæ yellow in front; abdomen crimson, the anal tuft yellow, the ventral surface white. Fore wing with the basal area purple-brown from one-third of costa to termen above

Fig. 39.—*Neritos phæoplaga*. ♂. ½.

tornus, its outer edge sinuous and angled at lower angle of cell and vein 3, a yellow spot edged with scarlet on inner margin before middle; apical area yellow with rounded purple-brown subapical patch with scarlet streak on costa above it and bidentate outer edge. Hind wing crimson with a fuscous patch on middle of termen.

♀. Fore wing with the subapical patch joined to the brown area by an oblique subterminal bar.

Hab. Fr. Guiana, St. Laurent Maroni (*Schaus*), 1 ♂ type, type ♀ in U.S. Nat. Mus. *Exp.* 22 millim.

*1546 *d*. Neritos drucei.

Neritos drucei, Roths. Nov. Zool. xvi. p. 294 (1909). & xviii. pl. 4. f. 8.

♂. Head and thorax deep crimson slightly mixed with brown; 1st joint of palpi white in front; abdomen greyish, dorsally suffused with crimson except towards extremity; pectus, legs, and ventral surface of abdomen white. Fore wing deep crimson slightly tinged with brown; a broad oblique semihyaline yellow band from costa beyond middle to termen between veins 4 and 2; cilia yellow at tips from below apex to the band. Hind wing yellow, the inner area and termen slightly tinged with crimson; the underside with the costa suffused with crimson.

Hab. Fr. Guiana, St. Laurent Maroni, in Coll. Dognin; Surinam, Maroewyn Valley, Aroewarwar Creek (*Klages*), type ♂ in Coll. Rothschild. *Exp.* 30 millim.

*1546 *e*. Neritos prophæa. (Plate XLV. fig. 12.)

Neritos prophæa, Schaus, Pr. U.S. Nat. Mus. xxix. p. 226 (1905).

♂. Head and thorax fuscous brown, the back of head and a ring round neck scarlet; fore coxæ yellowish; hind coxæ and

femora clothed with yellowish hair; abdomen with the basal half yellowish suffused with scarlet, the terminal half fuscous brown. Fore wing fuscous brown. Hind wing fuscous brown, the basal and inner areas yellowish suffused with scarlet.

Hab. Fr. Guiana, St. Laurent Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 30 millim.

*1546 *f.* Neritos maculosa.

Neritos maculosa, Schaus, Pr. U.S. Nat. Mus. xxix. p. 225 (1905).

♂. Antennæ serrate; hind legs with the femora, tibiæ, and 1st joint of tarsi dilated and thickly fringed with scales and hair; fore wing with veins 10, 11 stalked, the fovea elongate; hind wing with the costal lobe extending to three fourths length of wing.

Head fuscous with an orange patch on back of head; thorax grey suffused with fuscous brown; pectus and legs brownish orange; abdomen orange with some fuscous hair at base. Fore wing yellowish white, some brown at base; an antemedial brown streak above vein 1; two streaks below medial part of costa and shorter

Fig. 40.—*Neritos maculosa*, ♂. ½.

streaks below origin of vein 2 and above inner margin; two streaks in end of cell and one below the extremity; a series of streaks from costa beyond middle to tornus, towards which they decrease in length; some slight streaks on extremities of the veins. Hind wing yellow with slight fuscous irroration below the cell.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 36 millim.

*1547 *a.* Neritos sardinapalus.

Hyponerita sardinapalus, Roths. Nov. Zool. xvi. p. 51. pl. 7. f. 21 (1909).

♀. Head and thorax deep purplish crimson, the vertex of head with yellow patch; palpi yellow tinged with crimson; antennæ white towards tips; pectus and legs yellow, the fore femora tinged with crimson above; abdomen crimson, the medial segments suffused with brown, the anal tuft and ventral surface yellow. Fore wing deep crimson suffused with purple; a small deep crimson antemedial spot above vein 1; a triangular yellow patch from middle of costa to middle of discocellulars, edged with deep crimson which then runs along the costa and defines the outer edge of the

dark area leaving the termen yellow expanding into a wedge-shaped patch from vein 4 to submedian fold. Hind wing yellow, the terminal half slightly tinged with crimson.

Hab. Brazil, Up. Amazons, Fonte Boa; Peru, Carabaya, R. Huacamayo, La Union (*Ockenden*), type † ♀ in Coll. Rothschild. *Exp.* 30 millim.

*1547 *b*. Neritos flavimargo.

Neritos flavimargo, Joicey, A. M. N. H. (8) xviii. p. 61, pl. 14. f. 19 (1916).

♀. Head and thorax deep crimson with a slight purplish tinge; antennæ white at tips; pectus and legs pale ochreous yellow; abdomen crimson, the anal tuft pale ochreous yellow, the ventral surface white. Fore wing bright crimson suffused with silvery purple; traces of crimson antemedial, postmedial, and subterminal lines; a conical pale yellow patch from middle of costa to discal fold; the costa towards apex and termen and cilia to vein 2 narrowly yellow, the yellow on termen very slightly angled inwards at vein 4. Hind wing yellow suffused with pale crimson. Underside of fore wing pale crimson with the yellow on costa and termen as above; hind wing yellow with a faint crimson tinge.

Hab. Brazil, Amazons, R. Ucayali, type † ♀ in Coll. Joicey. *Exp.* 28 millim.

*1548 *a*. Neritos gaudialis. (Plate XLV. fig. 13.)

Neritos gaudialis, Schaus, Pr. U.S. Nat. Mus. xxix. p. 225 (1905).

♂. Head yellow; palpi behind, basal half of antennæ, and a bar on back of head scarlet; palpi in front, lower part of frons, and terminal half of antennæ brown; thorax red-brown; pectus, legs, and abdomen yellow, the two latter tinged with scarlet. Fore wing brown; a scarlet streak below base of costa, then bounding the large conical yellow patch from costa beyond middle to vein 2, then along costa to apex; a terminal yellow band edged with scarlet on inner side, narrow from apex to vein 3, then forming a triangular patch. Hind wing yellow tinged with scarlet on apical area.

Hab. Fr. Guiana, St Laurent Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 32 millim.

1549. Neritos cotes, del. *Neritos tipolis*.

*1549 *a*. Neritos coccinea.

Neritos coccinea, Schaus, Pr. U.S. Nat. Mus. xxix. p. 224 (1905).

♂. Antennæ serrate and with bristles and cilia; fore wing with vein 10 from cell, the fovea elongate; hind wing with the costal area three fourths of length of wing.

Head yellow; palpi behind, lower part of frons and vertex of head crimson; antennæ brown; thorax crimson, the tegulæ and prothorax yellow; pectus and legs yellow, the latter slightly tinged with crimson in places; abdomen yellow, dorsally suffused with crimson. Fore wing deep crimson; an antemedial band formed of

Fig. 41.—*Neritos coccinea*, ♂. ½.

three yellow spots, with a dark mark beyond it on the fovea; a brown streak on the costa, then bounding the conical yellow patch from costa to below vein 2; a yellow terminal band edged by brown on inner side, narrow and sinuous from apex to below vein 5 then forming a triangular mark. Hind wing dark brown, the base and inner margin yellowish.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 28 millim.

*1549 *b*. Neritos flavibrunnea.

Neritos flavibrunnea, Dogn. Hét. Nouv. Am. Sud. iii. p. 12 (1911).

Antennæ of male serrate and with long bristles; fore wing long and narrow, veins 4, 5 strongly stalked, 6 stalked with 7, 8, 9, 10 from cell, bent downwards and approximated to 7, 8, 9 for some distance; hind wing with the costal lobe about three fourths of wing, veins 3 and 5 strongly stalked.

♂. Head and thorax brown; palpi yellowish tinged with brown at tips; frons yellowish; legs yellow, the fore coxæ and femora

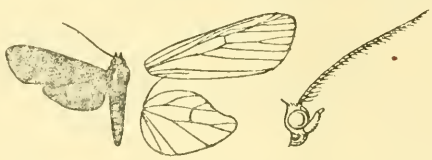

Fig. 42. *Neritos flavibrunnea*. ♂. ½.

tinged with brown in front; abdomen brown with some yellow on dorsum except on the two basal and the terminal segment, the ventral surface white, yellowish towards extremity. Fore wing reddish brown with the veins pale. Hind wing black-brown, the cell yellow expanding into a large rounded patch beyond and below end of cell to near termen. Underside of fore wing with the tuft

in the fovea whitish, a broad yellow postmedial band from costa to submedian fold with slightly sinuous edges; hind wing with the yellow area extending from vein 8 to vein 1 and the inner margin yellow.

Hab. Fr. Guiana, St. Jean Maroni (*Le Moult*), type † ♂ in Coll. Dognin. *Exp.* 30 millim.

*1549 *c*. Neritos flavipurpurea. (Plate XLV. fig. 14.)

Neritos flavipurpurea, Dogn. Hét. Nouv. Am. Sud, vii. p. 18 (1914).

♂. Head, thorax, and abdomen black-brown with a purplish gloss; pectus, legs, and ventral surface of abdomen dark greyish brown. Fore wing black-brown with a purple gloss; a broad oblique orange-yellow band from costa just beyond middle to tornus. Hind wing black-brown. Underside of fore wing with the tuft of hair in the fovea brownish ochreous.

Hab. Colombia, Muzo (*Fassl*), type † ♂ in Coll. Dognin. *Exp.* 36 millim.

1550 *a*. Neritos albicollis. (Plate XLV. fig. 15.)

Neritos albicollis, Hmpsn. A. M. N. H. (7) xv. p. 445 (1905).

♀. Palpi yellow at base, brownish in front, crimson behind; frons brown; vertex of head yellow with crimson line behind; antennæ brown, the basal joint yellow followed by some crimson; tegulæ pure white; thorax violaceous brown with a small crimson spot on metathorax; pectus, legs, and abdomen yellow, the last dorsally crimson with some brown at base. Fore wing with the basal area brownish suffused with purple and white extending on costa to near middle and thence to termen above tornus and bounded by a crimson line; a crimson streak just below the costa with an elliptical white patch below it; a crimson point at base and small crimson and yellow subbasal spots on median nervure and inner margin; the apical half of wing yellow with a large rounded white-suffused purple patch from apex to vein 3, edged by brown and crimson and with its outer edge rather waved. Hind wing yellow suffused with crimson especially towards apex.

Hab. Br. Guiana, Rockstone (*Kaye*), 1 ♀ type. *Exp.* 28 millim.

*1550 *b*. Neritos cennedyi. (Plate LXV. fig. 17.)

Paranerita kennedyi, Roths. Nov. Zool. xxiv. p. 478 (1917).

♂. Head yellow, the frons and antennæ except at base purplish brown, the palpi crimson at tips; thorax purple-brown; abdomen crimson, the anal tuft white; pectus and ventral surface of abdomen

white; legs pale yellow, the fore femora tinged with crimson above. Fore wing purple-brown, extending to costa before middle and thence to termen above tornus, its outer edge angled in lower extremity of cell, the rest of wing yellow with a very large subapical purple-brown patch from just below costa to below vein 5 where its inner edge is connected by a sinuous band with the purple-brown on inner area, the inner edge of the patch rounded and its outer edge trilobate, the purple-brown markings slightly defined by crimson. Hind wing yellow, tinged with crimson except the cilia. Underside of fore wing with the costa crimson towards base, the fovea surrounded by white and with the tuft of hair in it white, the purple-brown markings not defined by crimson; hind wing with the costal area crimson to discal fold.

Hab. Brazil, Minas Geraes (*Kennedy*), type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

1551. Neritos cardinalis.

♀. Joicey, A.M.N.H. (8) xviii. p. 61 (1916).

Fore wing with the antemedial yellow band narrower, the costal spot broader, the spot on termen above tornus constricted above.

*1551 *a*. Neritos carmen. (Plate XLV. fig. 16.)

Neritos carmen, Schaus, Pr. U.S. Nat. Mus. xxix. p. 224 (1905).

♀. Head scarlet, the vertex yellow; antennæ brown; palpi yellow in front at base, then brown; tegulæ and shoulders yellow, the former scarlet in front, the latter behind; thorax brown with two scarlet bars; pectus and legs yellow tinged in parts with scarlet; abdomen yellow dorsally suffused with scarlet. Fore wing brown with bright yellow markings edged with scarlet; a broad antemedial band narrowing to inner margin, its inner edge angled inwards at median nervure; a conical patch on costa just beyond middle, its apex on vein 2, conjoined at costa to the antemedial band and with a scarlet costal streak from it to the terminal band which is dilated at apex and angled inwards below vein 5. Hind wing brown, the costal and inner angles and termen towards apex yellow tinged with scarlet; the underside yellow slightly tinged with scarlet and with a brown patch on termen above middle.

Hab. Fr. Guiana, St. Laurent Maroni, type † ♀ in U.S. Nat. Mus. *Exp.* 30 millim.

*1552 *a*. Neritos tremula.

Neritos tremula, Schaus, Pr. U.S. Nat. Mus. xxix. p. 225 (1905).
Neritos subgandialus, Roths. Nov. Zool. xxiv. p. 479 (1917).

♂. Hind wing with veins 6, 7 coincident.

Head and thorax red-brown; palpi above, antennæ at base and a bar on vertex of head scarlet, tegulæ edged with scarlet, thorax

irrorated with scarlet; pectus and legs yellowish tinged in parts with scarlet, fore and mid tibiæ with brown patches, fore tarsi ringed with brown; abdomen yellow suffused dorsally with scarlet except at extremity and with a white point at base. Fore wing red-brown closely reticulate with brown striæ; some scarlet at base of inner margin; a small scarlet annulus with yellow centre below the

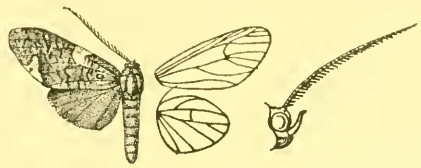

Fig. 43.—*Neritos tremula*, ♂. ½.

cell before middle; an irregularly triangular yellow patch slightly edged with scarlet from middle of costa to median nervure; a small yellow spot at apex and conical patch with brown spot on it on termen between vein 4 and submedian fold, its apex nearly reaching vein 5 and its inner edge irregular. Hind wing scarlet.

Hab. Fr. Guiana, type † ♂ in U.S. Nat. Mus., St. Jean Maroni, type † ♂ *subgaudialis*, in Coll. Rothschild. *Exp.* 38 millim.

1552 *b*. Neritos steniptera.

Neritos steniptera, Hmpsn. A. M. N. H. (7) xv. p. 445 (1905).
Areomolis basalis, Roths. Nov. Zool. xvi. p. 35, pl. 5. ff. 20-21 (1909).

Antennæ of male serrate and fasciculate; fore wing long and narrow, especially in male, hind wing with veins 6, 7 coincident in male, strongly stalked in female.

Head and thorax red-brown; palpi with some scarlet above; vertex of head yellow with some scarlet round it; tegulæ scarlet at tips; dorsum of thorax yellow edged with scarlet; pectus and legs yellow marked with brown and scarlet; abdomen yellow dorsally suffused with scarlet. Fore wing red-brown with yellow spots edged with scarlet on fulvous orange patches; a spot at base; an

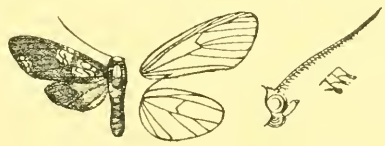

Fig. 44.—*Neritos steniptera*, ♂. ½.

antemedial series of three conjoined spots forming a band from subcostal nervure to vein 1, excurved at middle; a similar excurved band from middle of costa to median nervure; a series of three spots from vein 5 before termen to vein 2 at termen; cilia with scarlet points towards apex. Hind wing orange-yellow with

fuscous terminal area extending on costa to near middle, narrowing to a point above tornus.

Hab. Fr. Guiana, St. Jean Maroni (*Schaus*), 1 ♀ type, type ♂ in U.S. Nat. Mus.; Brazil, Amazons, Fonte Boa (*Klages*), type † ♂ *basalis* in Coll. Rothschild. *Exp.* 30 millim.

*1552 *c.* Neritos occendeni.

Areomolis ockendeni, Roths. Nov. Zool. xvi. p. 35, pl. 5. ff. 23–24 (1909).

♂. Head white; palpi and antennæ red-brown; frons red-brown with crimson bar above; back of head with two crimson spots; thorax red-brown, the prothorax with pair of white spots edged with crimson; pectus and legs yellow tinged with crimson, the fore tibiæ and tarsi banded with brown; abdomen yellow, dorsally tinged with brown on basal segments, then banded with crimson. Fore wing deep red-brown faintly mottled with yellowish; a white point edged with crimson at base; an S-shaped yellowish white antemedial spot edged with crimson and defined by yellow from subcostal nervure to vein 1; a yellowish white bar, excurved below subcostal nervure and with small spot before and below it, both edged with crimson and defined by yellow, from middle of costa to lower angle of cell; three small white spots edged with crimson from before termen at vein 5 to termen at vein 2; a series of minute white and crimson spots on the termen and cilia. Hind wing yellow with a terminal dark brown band, rather broad at costa and narrowing to a point near tornus; cilia with yellow points from below apex to vein 2.

♀. Fore wing with the antemedial patch more trifid and not defined by yellow, the bar at end of cell confluent with the small spot and not defined by yellow.

Hab. Surinam, Maroewym Valley, Aroewarwar Creek; Brazil, Up. Amazons, Fonte Boa (*Klages*); Peru, Carabaya, Rio Suambari, La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.*, ♂ 30, ♀ 34 millim.

1552 *d.* Neritos cyclopera.

Neritos cyclopera, Hmpsn. A. M. N. H. (7) xv. p. 446 (1905).

Antennæ of male serrate and fasciculate; fore wing with the apex produced, the termen oblique; hind wing with vein 7 from before end of cell.

♂. Palpi yellow tinged with scarlet behind and with brown spot

Fig. 45.—*Neritos cyclopera*, ♂. ½.

at extremity of 2nd joint in front; frons brown; vertex of head

yellow; thorax purple-brown; pectus and legs yellow, fore femora crimson in front; abdomen yellow, dorsally scarlet except at extremity. Fore wing with the base dark purple-brown from costa before middle to termen above tornus, its outer edge somewhat angled at lower angle of cell and vein 3; the apical area yellow with a large elliptical purple-brown subapical patch with a little scarlet above it on costa and its outer edge waved. Hind wing orange-yellow with a fuscous terminal band, extending on costa to middle, then sinuous to tornus.

Hab. Fr. Guiana, St. Jean Maroni (*Schaus*), 1 ♂ type. *Exp.* 30 millim.

*1552*e.* Neritos sanguidorsia.

Neritos sanguidorsia, Schaus, Pr. U.S. Nat. Mus. xxix. p. 226 (1905).
Hæmanota cubana, Roths. Nov. Zool. xvii. p. 35, pl. 13. f. 42 (1910).

♂. Antennæ with minute serrations ending in long bristles.

Head and thorax scarlet; palpi fuscous, scarlet at base and yellow at extremity of 1st and 2nd joints; pectus behind and legs fuscous;

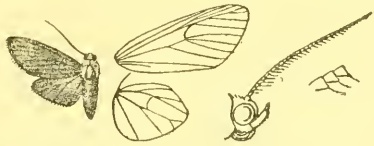

Fig. 46.—*Neritos sanguidorsia*, ♂. $\frac{1}{1}$.

abdomen fuscous. Fore wing fuscous slightly suffused with purple, the base scarlet. Hind wing fuscous.

Hab. Cuba, Holguin, type † ♂ *cubana* in Coll. Rothschild; Venezuela, Caura R. Corosito (*Klages*), in Coll. Rothschild. Fr. Guiana, St. Jean Maroni, type † ♂ in U.S. Nat. Mus., St. Laurent Maroni. *Exp.* 22 millim.

*1552*f.* Neritos purpurascens.

Paranerita purpurascens, Roths. A. M. N. H. (8) iv. p. 220 (1909); id. Nov. Zool. xvii. pl. 12. f. 13.

Antennæ of male with bristles and cilia; fore wing without fovea; veins 10, 11 stalked; hind wing with the costa slightly lobed.

♂. Head crimson with a broad yellow band between antennæ; palpi yellow in front; thorax crimson tinged with brown; pectus and legs yellow, the fore femora crimson above; abdomen crimson, the extremity and ventral surface white. Fore wing with the basal area crimson tinged with brown extending on costa to before middle and thence obliquely curved to termen above tornus, its outer edge bright crimson; a slight yellow mark at base of inner margin and a small round antemedial yellow spot edged with

crimson above vein 1; the rest of wing yellow with a large round subapical crimson patch tinged with brown and with slightly waved crimson edges. Hind wing yellow faintly tinged with crimson. Underside of fore wing with the basal area broadly edged with

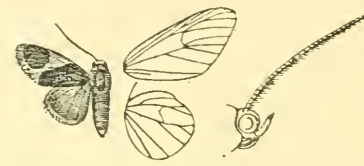

Fig. 47.—*Neritos purpurascens*. ♂. ½.

bright crimson, the subapical patch bright crimson; hind wing yellow.

Hab. Brazil, Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 24 millim.

Genus **PAREVIA**.

Antennæ of male with short branches ending in bristles; hind wing with veins 6, 7 coincident.

*1246 *a*. **Parevia methæmia**. (Plate XLV. fig. 17.)

Parevia methæmia, Schaus, Pr. U.S. Nat. Mus. xxix. p. 213 (1905).

♂. Head yellow; palpi tinged with crimson above, the extremity of 2nd and 3rd joints brown; thorax red-brown; pectus and legs yellow, the fore legs tinged with crimson in front; abdomen crimson, the extremity and ventral surface yellow. Fore wing red-brown, tinged with crimson towards base of inner margin; a conical yellow spot on middle of costa and two small spots towards apex; a triangular patch on termen between vein 5 and tornus, its outer edge indented at vein 2. Hind wing yellowish crimson.

Hab. Fr. Guiana, St. Laurent Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 20 millim.

*1246 *d*. **Parevia guianensis**.

Parevia guianensis, Joicey, A. M. N. H. (8) xviii. p. 56, pl. 14. f. 6 (1916).

♀. Head yellow with a crimson line behind; antennæ brown except the basal joint; thorax red-brown; abdomen crimson; pectus, legs, and ventral surface yellow, the tarsi tinged with brown. Fore wing red-brown with a slight greyish tinge; a conical yellow patch from costa to lower angle of cell; a small yellow postmedial spot on costa edged with scarlet scales and a minute scarlet spot at inner margin; a small yellow spot on costa just before apex and a yellow patch on termen below vein 5, narrowing to a point at submedian fold. Hind wing red-brown with the inner margin narrowly yellowish. Underside ed-brown; fore wing with the

yellow marks on costa and termen as above; hind wing with the basal half yellow with irregular outer edge.

Hab. Br. Guiana, type † ♀ in Coll. Joicey. *Exp.* 18 millim.

*1246 *b*. Parevia parnelli. (Plate XLV. fig. 18.)

Parevia parnelli, Schaus, A. M. N. H. (8) vii. p. 613 (1911).

♂. Head yellow; the palpi with some crimson at sides, the frons and back of head with crimson spots, the antennæ brown; thorax purple-brown; pectus and legs yellow; abdomen crimson with small dorsal brown spots on three basal segments, anal tuft yellow and brown, ventral surface yellow. Fore wing purple-brown; some yellowish at base of inner margin; small crimson antemedial spots in submedian fold and below vein 1, a medial spot below vein 1, and postmedial spots above and below vein 1; a conical yellow patch slightly edged with crimson from middle of costa to median nervure, a small postmedial yellow spot edged with crimson on costa and a larger conical spot towards apex; a wedge-shaped yellow patch edged with crimson and brown on termen from vein 5 to tornus, its inner edge sinuous. Hind wing yellow; a terminal fuscous brown band narrowing to tornus, its inner edge excurved at costa.

Hab. Costa Rica, Sixola R. (*Schaus*), type † ♂ in U.S. Nat. Mus. *Exp.* 22 millim.

1246 *c*. Parevia metachryseis. (Plate XLV. fig. 19.)

Parevia metachryseis, Hmpsn. A. M. N. H. (7) xv. p. 443 (1905).

Head yellow; palpi tinged with crimson; antennæ brownish; thorax brown; pectus and legs yellow; abdomen yellow, dorsally crimson except at base and extremity, some dorsal black points on basal segments and a bar on anal segment. Fore wing purple-brown; the base of inner area yellow; small crimson-ringed yellow spots before middle above vein 1, at middle above inner margin and beyond middle above and below vein 1; a truncate triangular yellow patch from middle of costa to median nervure; postmedial and subterminal yellow spots on costa and a triangular patch on termen from above vein 4 to vein 1, its apex pointing towards the postmedial costal spot; apical half of cilia brown with some crimson points. Hind wing yellow, the terminal area fuscous from middle of costa narrowing to a point at tornus.

Hab. Fr. Guiana, St. Laurent Maroni, type ♀ in U.S. Nat. Mus.; Surinam, Surinam R. Geldersland (*Schaus*), 1 ♂ type. *Exp.* 22 millim.

1246 *d*. Parevia mathani.

Parevia mathani, Roths. Nov. Zool. xvi. p. 270 (1909), & xviii. pl. 5. f. 35.

♂. Head and thorax yellow; palpi with some pale red-brown at side of 2nd joint; antennæ pale red-brown; tegulæ, patagia, and

metathorax with pale red-brown patches; abdomen crimson, the extremity brown, the ventral surface yellow. Fore wing pale red-brown; the basal costal area yellow; a round yellow antemedial spot edged with dark brown below the cell and a small irregular mark on inner area; a round medial spot edged with dark brown on inner area with spots beyond it above and below vein 1; a quadrate paler yellow patch edged with dark brown from middle of costa to just above median nervure, a postmedial spot on costa and triangular patch before apex; three minute terminal yellow spots between apex and vein 5, and a wedge-shaped patch with sinuous inner edge between veins 5 and 1. Hind wing yellow with a terminal brown band narrowing to a point above tornus.

Hab. Brazil, Amazons, Teffé (*M. de Mathan*), type † ♂ in Coll. Rothschild; São Paulo, 1 ♂. *Exp.* 20 millim.

*1246*e*. Parevia syntomoides.

Neritos syntomoides, Roths. Nov. Zool. xvii. p. 505 (1910), & xix. pl. 5. f. 30.

♂. Head and thorax black; palpi yellow at base and in front; lower part of frons yellow; antennæ white at tips; tegulæ yellow in front, the patagia with yellow patches at shoulders, the metathorax edged with yellow behind; pectus and legs yellow, the fore and mid tibiæ and tarsi and the hind tarsi above blackish; abdomen orange, the extremity black, the ventral surface yellow. Fore wing black; an antemedial yellow streak below costa, wedge-shaped hyaline patch in cell and rounded yellow patch on inner area; a yellowish hyaline postmedial patch from below costa to vein 3, narrowing above and expanding below; cilia white at apex. Hind wing yellow, the inner area orange, a black terminal band narrowing to apex and tornus.

Hab. Surinam, Maroewym Valley, Aroewarwar Creek (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 24 millim.

*1246*f*. Parevia griseata.

Areomolis griseata, Roths. Nov. Zool. xvi. p. 35, pl 5. f. 22 (1909).

♂. Head and thorax grey-brown; palpi whitish in front; back of head with two yellow spots; tegulæ edged with grey, the patagia and dorsum of thorax streaked with grey; femora streaked with whitish, the tarsi ringed with whitish; abdomen grey-brown with dorsal greyish streak, the three penultimate segments with broad dorsal yellow bands, the anal tuft and ventral surface white, the latter with ventral brown fascia except on two terminal segments. Fore wing grey-brown, the veins and submedian fold streaked with whitish; two small rather elongate whitish spots at middle of cell and a series from above base of vein 6 to above middle of vein 1, oblique below vein 4. Hind wing white tinged with brown, the termen suffused with brown.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

*1246 *g*. Parevia affinis.

Neritos affinis, Roths. Nov. Zool. xvi. p. 292 (1909).

Hind tibiæ of male fringed with long hair on outer side.

♂. Head pink; palpi grey-brown; antennæ blackish, pink towards base; thorax grey-brown; pectus brownish white, the fringes of hind tibiæ whitish; abdomen pale crimson, the extremity grey-brown, the ventral surface whitish towards base,

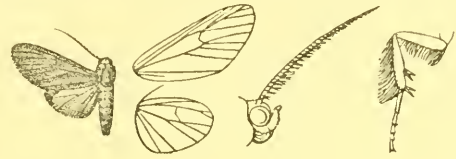

Fig. 48.—*Parevia affinis*, ♂. ½.

grey-brown towards extremity. Fore wing grey-brown, the veins darker. Hind wing pale crimson; the apical area broadly grey-brown, narrowing to a point at submedian fold; the underside with the costal half greyish ochreous to the dark apical area.

Hab. Venezuela, Esteban Valley, Las Quiguas, 2 ♂; Surinam, Maroewyn Valley, Aroewarwar Creek (*Klages*), type † ♂ in Coll. Rothschild; Brazil, Up. Amazons, Fonte Boa. *Exp.* 22 millim.

*1246 *h*. Parevia griseotincta. (Plate XLV. fig. 20.)

Neritos griseotincta, Roths. Nov. Zool. xvi. p. 291 (1909).

♀. Head orange-yellow; palpi grey-brown; antennæ blackish, yellow at base; thorax greyish brown; abdomen fuscous brown. Fore wing uniform greyish brown. Hind wing fuscous brown.

Hab. Surinam. Maroewyn Valley, Aroewarwar Creek (*Klages*), type † ♀ in Coll. Rothschild. *Exp.* 20 millim.

1246 *i*. Parevia schausi.

Præmolis schausi, Roths. Nov. Zool. xvi. p. 52, pl. 4. f. 23 (1909).

♂. Head, thorax, and abdomen yellow slightly tinged with scarlet; palpi scarlet behind; frons and vertex of head with scarlet

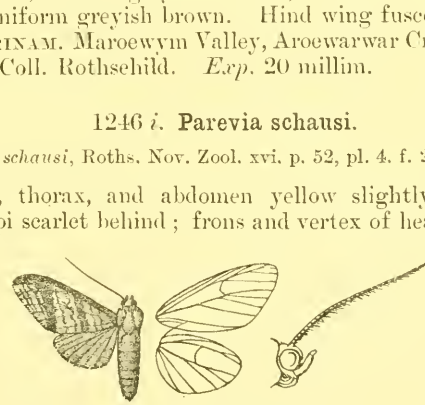

Fig. 49.—*Parevia schausi*, ♂. ½.

bars; tegulæ with scarlet line near base; pectus, legs, and ventral surface of abdomen yellow, the fore legs scarlet in front. Fore

wing yellow; the costal area suffused with red-brown; a slight scarlet streak below base of costa followed by a brown bar; two slight oblique minutely waved antemedial scarlet lines; an oblique red-brown medial band; a fine oblique irregularly waved scarlet line from upper angle of cell to inner margin conjoined on vein 6 to a similar line beyond the cell: a red-brown band from costal area, where it expands somewhat, to tornus, a fine waved scarlet line beyond it; a slight waved scarlet subterminal line from vein 7 to 3, followed by a slight brown line then a slight scarlet line: cilia pale red-brown. Hind wing yellow.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type ♂ in Coll. Rothschild. *Exp.* 32 millim.

*1246*j*. Parevia lobata.

Parevia lobata, Dognin, Hét. Nouv. Am. Sud, iii. p. 9 (1911).

Antennæ of male serrate and fasciculate; fore wing with the inner area strongly dilated; hind wing with the costal area greatly lobed, a small patch of androconia on upper side at upper angle of cell, the tornal area very strongly lobed, the inner area clothed with thick hair on upper side and rough scales on under side, veins 3 and 5 coincident.

♂. Head and thorax white; the palpi, frons, and antennæ brown: tegulæ slightly edged with crimson, the patagia with some crimson on upper edge towards base; fore legs pale brown, the pectus in front and fore coxæ with crimson patches; abdomen crimson, the extremity and ventral surface white. Fore wing rufous with the veins paler, extending on costa to beyond middle

Fig. 50.—*Parevia lobata*, ♂. ½.

and thence with incurved sinuous edge defined by blackish to termen at submedian fold, the apical area yellow; some white at base of inner margin defined above by blackish and with some crimson on its outer edge: a small blackish postmedial spot in discal fold. Hind wing white tinged with ochreous to below the cell, the inner area crimson. Underside of fore wing with the rufous area replaced by pale crimson except the part covered by the costal area of hind wing which is white, a blackish discoidal lunule; hind wing pale crimson with the rough scales of inner area white.

Hab. Colombia, Cali (*Fassl*), type ♂ in Coll. Dognin. *Exp.* 34 millim.

*1246 *k*. Parevia cinerea.

Diarhabdosia cinerea, Roths. Nov. Zool. xx. p. 217 (1913).

Antennæ of male with serrations ending in bristles; hind wing with veins 6, 7 shortly stalked.

♂. Head, thorax, and abdomen grey-brown, the tips of patagia pale; antennæ blackish; palpi with the 3rd joint blackish. Fore wing grey-brown with some dark suffusion at end of cell and a

Fig. 51.—*Parevia cinerea*, ♂. $\frac{1}{1}$.

pale shade from beyond lower angle of cell to tornal part of inner margin. Hind wing whitish tinged with brown, the termen darker; the underside with the costa more suffused with brown.

Hab. Brazil, Amazons. Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 24 millim.

Genus **SCHALOTOMIS**, nov.

Type. *R. roseothorax.*

Proboscis fully developed; palpi upturned, the 2nd joint reaching to middle of frons, the 3rd short; frons smooth; eyes large, round; antennæ of male minutely serrate with bristles and cilia; tibiæ with the spurs moderate; build slender. Fore wing long and narrow, the apex rounded, the termen obliquely curved; vein 2 from beyond middle of cell, strongly curved towards base; 3, 4 stalked and typically curved downwards towards base; 5 from angle; 6 from below upper angle; 7, 8, 9 stalked, 7 typically from beyond 9; 10, 11 from cell. Hind wing with the costa typically lobed before middle in male, then somewhat excised; vein 2 from towards end of cell; 3, 5 coincident; 4 absent; 6, 7 on a long stalk; 8 from before middle of cell in male and to the extremity of the costal lobe, from towards end of cell in female.

In key differs from *Neritos* in the fore wing having veins 3, 4 stalked: hind wing with veins 3 and 5 coincident.

Sect. I. Fore wing with veins 3, 4 bent downwards, 7 from beyond 9, 10, 11 from cell; hind wing with the costa lobed towards base, then excised.

*1246 *l*. Schalotomis roseothorax.

Diarhabdosia roseothorax, Roths. Nov. Zool. xx. p. 217 (1917).

♂. Head grey-brown, the frons whitish, the antennæ blackish, the palpi blackish with white ring at extremity of 2nd joint; thorax red-brown, the outer edge of tegulæ and base of patagia pale yellow, the rest of patagia rose pink with black tips: pectus and

base of legs whitish, the fore tibiæ and tarsi black ringed with white; the mid and hind tibiæ red-brown, the tarsi black ringed

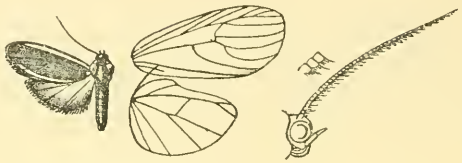

Fig. 52.—*Schalotomis roseothorax*, ♂. ½.

with white; abdomen reddish brown, the ventral surface whitish. Fore wing reddish brown with white fascia just below costa from base to apex and white streak above inner margin curved upwards to vein 3 towards termen; cilia whitish towards apex. Hind wing white, the terminal area suffused with brown; the underside with the costal area suffused with brown, the termen narrowly brown.

♀. Fore wing rather darker brown; hind wing brown, the underside with the inner area whitish except towards termen.

Hab. PERU, R. Inambari, La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild, R. Huacamayo, La Union (*Ockenden*). *Exp.* 24–30 millim.

SECT. II. Fore wing with veins 3, 4 not bent downwards, 7 from 8 before 9; 10, 11 shortly stalked; hind wing with the costa highly arched throughout, the tornus strongly lobed and the tornal area clothed with rough scales on upper side.

*1246 *m*. Schalotomis curta.

Hyponerita curta, Roths. Nov. Zool. xxiv. p. 479 (1917).

♂. Head yellow, scarlet behind, the frons red-brown, scarlet at sides, the antennæ red-brown, scarlet above towards base, white

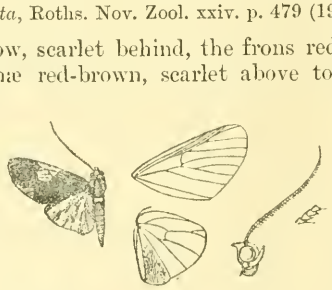

Fig. 53.—*Hyponerita curta*, ♂. ½.

towards tips, the palpi scarlet, yellow in front; thorax bright red-brown; abdomen scarlet with a fan of silvery white scales at base of dorsum and tufts of rufous hair on each side of it; pectus, mid and hind legs, and ventral surface of abdomen white, some scarlet below the shoulders, the fore legs yellow with the femora and tibiæ

scarlet above. Fore wing bright red-brown; some scarlet at base of costa and inner margin; an oblique conical yellow patch defined by scarlet from costa to beyond lower angle of cell; a small yellow apical spot and triangular patch below extremity of vein 4 defined on inner side by scarlet; cilia yellow to below vein 2, chequered with red-brown below veins 7, 6, 5. Hind wing yellow tinged with scarlet, especially on costal area. Underside of fore wing with the costal area towards base and the veins scarlet, the inner area pale scarlet.

Hab. Fr. Guiana, St. Jean Maroni, type† ♂ in Coll. Rothschild. *Exp.* 26 millim.

Genus **ANTAXIA**, trans. from Vol. I. p. 475.

In key differs from *Automolis* in the hind wing having vein 8 absent.

1246 *m*. **Antaxia meridionalis.** (Plate XLV. fig. 21.)

Antaxia meridionalis, Schaus, Pr. U.S. Nat. Mus. xxix. p. 190 (1905).

♂. Head and thorax pale yellow; palpi and antennæ red-brown; patagia edged with brown and crimson above; brown and crimson patches below the shoulders; legs marked with brown; abdomen crimson, pale yellow at base, the extremity and ventral surface white. Fore wing yellow; the base of inner margin tinged with crimson; a red-brown antemedial band, expanding into a fascia on costa and into a large somewhat quadrate patch below the cell, enclosing a small yellow spot in submedian fold, the veins and submedian fold on it crimson, a somewhat wedge-shaped patch from just beyond it to tornus with some crimson on the veins; a point in upper end of cell and points beyond the cell above and below vein 6 and below vein 4; a wedge-shaped brown patch on apical part of costa connected by a short band with a wedge-shaped spot below vein 6, the veins crossing it crimson and with three small spots between it and the patch at tornus; a subterminal series of small spots. Hind wing pale yellow, the inner area tinged with crimson.

Hab. Peru, Carabaya, 1 ♂, type† ♂ in U.S. Nat. Mus. *Exp.* 48 millim.

*1246 *n*. **Antaxia similis**, (Plate LXV. fig. 18.)

Antaxia similis, Roths. Nov. Zool. xxiv. p. 479 (1917).

♂. Head and thorax pale yellow, the shoulders with pale crimson spots, the patagia with crimson upper edge, the dorsum of thorax pale red-brown, the antennæ pale red-brown, the frons with some fulvous below, the palpi fulvous with some crimson at sides, black above and grey-brown tips; abdomen crimson; pectus and ventral surface of abdomen white with some fulvous below the wings; legs

fulvous, the tarsi brown at extremity. Fore wing pale yellow; the costa pale violaceous brown from near base to end of cell, confluent with a patch in middle of cell which is confluent with a patch on inner area, these markings all defined by slight crimson marks; a yellow spot defined by crimson below origin of vein 2; a minute violaceous brown spot in upper end of cell and minute spots beyond the cell below veins 7, 6, 4; vein 2 streaked with crimson to the obliquely curved maculate violaceous brown postmedial line, expanding into a patch on costal area, a rather larger spot below vein 6 and a patch on inner area confluent with the antemedial patch and extending to tornus, leaving a small wedge-shaped yellow spot at middle of inner margin, the maculate band interrupted by crimson streaks on veins 7, 6, 5, and the extremity of vein 1 streaked with crimson; a subterminal series of minute violaceous brown spots. Hind wing white, the inner area tinged with crimson. Underside of fore wing with the costal area to beyond middle and the markings of inner area rufous, the patch in the cell dark brown, the postmedial band rufous, blackish between veins 8 and 5 and with its outer edge blackish towards costa; hind wing wholly white.

Hab. Peru, Carabaya, Oconeque (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 44 millim.

*1246 *o*. Antaxia primulina. (Plate XLV. fig. 22.)

Antaxia primulina, Dogn. Hét. Nouv. Am. Sud, vii. p. 15 (1914).

♂. Head and thorax pale primrose yellow; antennæ rufous; palpi crimson with some red-brown above and at tips; frons with rufous bar; pectus with crimson fascia below the wings; abdomen pale primrose yellow with crimson patch on dorsum from near base to near extremity. Fore wing pale primrose yellow; the costal edge red-brown with a crimson streak towards base; the medial part of costal area suffused with rufous emitting an antemedial crimson and rufous line angled inwards on median nervure, then excurved and ending at submedian fold; minute brown spots edged with crimson in and beyond upper angle of cell and a brown point below lower angle; the terminal part of costal area suffused with red-brown edged with crimson and with small yellow spot near its lower edge which is sinuous; a curved postmedial series of red-brown points from the inner edge of the costal patch to below vein 4. Hind wing yellowish white.

Hab. Colombia, Medina (*Fassl*), type † ♂ in Coll. Dognin. *Exp.* 42 millim.

*1246 *p*. Antaxia collaris. (Plate XLV. fig. 23.)

Amaxia collaris, D. Jones, Trans. Ent. Soc. 1912, p. 420.

♂. Head brown and crimson, the palpi crimson; frons with some white; antennæ brown, white at tips; tegulæ and patches on shoulders pure white, crimson in front; thorax brown and crimson;

pectus and legs white; throat crimson; fore femora brown, fore tibiæ brown and crimson; abdomen crimson, the extremity and ventral surface brownish white. Fore wing pale brown irrorated with crimson and the veins streaked with crimson; a conical yellow subbasal patch on costa edged with crimson and two yellow spots edged with crimson in submedian interspace; two similar yellow medial spots in submedian interspace and a yellow streak edged with crimson on middle of inner margin; a large oblique conical yellow patch from costa, on which it extends from before middle to well beyond middle, to just above vein 2, its edges sinuous, and with four brown points on it in and beyond upper angle of cell, an oblique sinuous yellow line edged with crimson from it to inner margin; two obliquely placed yellow marks edged with crimson below apex; a yellow terminal band with irregular inner edge from apex to just below vein 2, with a series of brown points on it just before termen. Hind wing pale crimson with a brown point before termen below vein 5 followed by a series of dentate marks to vein 1; cilia whitish: the underside white tinged with crimson except on costal area.

♀. Head, thorax, and fore wing with more crimson and less brown.

Hab. Brazil, Santos, Alto da Serra (*D. Jones*), type † ♂ in Coll. D. Jones. *Exp.* 40 millim.

*1246 *q*. Antaxia apiciplaga.

Automolis apiciplaga, Roths. Nov. Zool. xvi. p. 39, pl. 6. f. 3 (1909).

♀. Head, thorax, and abdomen crimson; pectus, legs, and ventral surface of abdomen white, the fore femora above and tibiæ at base crimson. Fore wing crimson with a slight violaceous grey tinge except on inner area; the apical area pale yellow from costa beyond middle to termen at vein 2, with a large rounded crimson patch from costa before apex to just below vein 5, tinged with violaceous grey except at edges and its outer edge waved; postmedial crimson points on veins 7, 6 and subterminal points on veins 4, 3. Hind wing crimson, the costal edge white towards apex; cilia white.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♀ in Coll. Rothschild. *Exp.* 36 millim.

*1246 *r*. Antaxia flavomarginata.

Automolis flavomarginata, Roths. Nov. Zool. xvii. p. 21 (1910), & xix. pl. 5. f. 29.

Fore wing with veins 3, 4 stalked.

♀. Head, thorax, and abdomen crimson; pectus, legs, and ventral surface of abdomen yellow, the fore femora and tibiæ except at extremity crimson above, the mid tibiæ crimson at base. Fore wing crimson suffused with greyish except at edges of the crimson area:

the costal edge pale yellow expanding into a conical patch beyond middle extending to vein 5 and irrorated with some crimson scales;

Fig. 54.—*Antaxia flavomarginata*, ♀. ½.

a terminal pale yellow band except at tornus, its inner edge dentate; some pure crimson at base of inner margin and an antemedial patch on inner area. Hind wing pale crimson; the cilia yellow.

Hab. Brazil, Amazons, Fonte Boa (*Klages*), type † ♀ in Coll. Rothschild. *Exp.* 26 millim.

1246 *s*. Antaxia hyalina.

Automolis hyalina, Roths. Nov. Zool. xvi. p. 41, pl. 5. f. 33 (1909).

Fore wing with vein 6 from the cell; 10 from beyond 7; hind wing with vein 3 from well before angle of cell.

♂. Head, thorax, and abdomen orange; palpi blue-black with white rings at extremities of 1st and 2nd joints; lower part of frons black; antennæ black except towards base; fore tibiæ and tarsi streaked with black and white above, the mid and hind tibiæ with black rings at extremities and the tarsi streaked with black above.

Fig. 55.—*Antaxia hyalina*, ♂. ½.

Fore wing with the basal area orange bounded by an oblique black line from middle of costa to vein 1 well before middle then angled outwards and upwards to the submedian fold beyond middle, the orange extending on inner area to below its extremity; the rest of wing semihyaline whitish suffused with pale brown in and below end of cell and on terminal area except at middle; the veins streaked with black; the medial part of costal area black with a bluish white streak on it below costa; an oblique bluish white discoidal bar defined by blackish; a slight bluish streak in submedian fold from the antemedial line to towards termen; an obliquely curved brown postmedial line from costa to the end of orange area; cilia black-brown. Hind wing pale semihyaline yellow, the inner area deeper yellow; a terminal black-brown band from vein 2 to tornus; cilia

black-brown. Underside of fore wing with the medial part of costa black conjoined to the black discoidal bar; hind wing with black discoidal point.

♀. Hind wing wholly buff, the cilia brown.

Hab. Costa Rica, Juan Vinas (*Schaus*), 1 ♂; Peru, La Oroya, San Domingo. Brazil, Amazons, Fonte Boa. *Exp.* 34 millim.

Subsp. *amaculata*, Roths. Nov. Zool. xvii. p. 23, pl. 13. f. 36 (1910).

Hind wing more densely scaled and wholly yellow without the dark patch on inner half of termen.

Hab. Colombia.

Page 39. Genus **AUTOMOLIS**, insert :—

	Type.
Caryatis, Hübn. Verz. p. 171 (1827)	*rutilus.*
Ernassa, Wlk. vii. 1643 (1856)	*sanguinolenta.*

*1247 *a*. Automolis aletis. (Plate XLV. figs. 25 ♂, 26 ♀.)

Automolis aletis, Schaus. A. M. N. H. (8) vi. p. 200 (1910).

♂. Head and thorax white, the head, tegulæ, patagia, and prothorax tinged with yellow; palpi black above; frons with lateral black spots; antennæ brown; meso- and metathorax with paired black spots; fore coxæ with yellow patches; legs tinged with brown, the fore femora and fore and mid tibiæ streaked with black above; abdomen deep crimson, the base with dorsal white patch and some yellow hair at sides, a dorsal series of white points, the extremity and ventral surface white. Fore wing white, the terminal half semihyaline; the costal edge black, fuscous towards apex, a black streak below it at middle and two minute oblique streaks on postmedial area; some crimson at base of inner margin; antemedial black points above and below submedian fold; a medial series of black streaks from upper extremity of cell to below vein 1, an oblique striga beyond the discocellulars, a point beyond lower angle of cell and oblique striga below it; a short subterminal streak in discal fold. Hind wing semihyaline white, the inner area suffused with crimson.

♀. Fore wing with oblique striga and point in end of cell instead of the streaks, an oblique series of five short streaks from just beyond lower angle of cell to above inner margin, and a series of four subterminal streaks from below vein 3 to above inner margin; hind wing without crimson.

Hab. Costa Rica, Sixola R. (*Schaus*), type † ♂ in U.S. Nat. Mus.; Panama, Lino (*Fassl*), ♀ in Coll. Dognin. *Exp.* 44 millim.

*1247 *b*. Automolis aleteria. (Plate XLV. fig. 24.)

Automolis aleteria, Schaus, Pr. U.S. Nat. Mus. xxix. p. 214 (1905).

♂. Head and thorax white; palpi, antennæ, and fore legs brownish; head between antennæ and tips of tegulæ yellow; patagia

at base, meso- and metathorax tinged with crimson; abdomen white, dorsally crimson except at base and extremity and a series of dorsal points. Fore wing semihyaline white, the base of inner margin tinged with crimson; a blackish streak on middle of costa; two slight streaks in end of cell, two beyond lower angle, one below end of cell, two longer streaks in submedian interspace and one above inner margin; a slight subterminal spot above vein 5. Hind wing white, the inner half tinged with crimson, the patch of scales yellowish.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 44 millim.

*1247 *c.* Automolis brachystriata, (Plate XLV. fig. 27.)

Automolis brachystriata, Dogn. Hét. Nouv. Am. Sud, v. p. 9 (1912).

♀. Head and thorax white mixed with some yellow; palpi black behind; antennæ brown; mesothorax with a pair of blackish points; fore and mid tibiæ and tarsi tinged with brown: abdomen white with broad crimson subdorsal bands from 2nd to 6th segments leaving the dorsum narrowly white. Fore wing white; an antemedial black point above vein 1; the discocellulars with two black striæ above, obliquely placed, a black point in lower angle of cell and three beyond the angle; a series of four short black streaks between lower angle of cell and inner margin; a small subterminal black spot above vein 5 and two minute streaks above and below submedian fold. Hind wing white.

Hab. Colombia, Medina (*Fassl*), type † ♀ in Coll. Dognin. *Exp.* 54 millim.

*1248 *a.* Automolis neritosia.

Automolis neritosia, D. Jones, Trans. Ent. Soc. 1908, p. 146.

Antennæ of male bipectinate with short fasciculate branches; fore wing with large patch of androconia below middle of cell on

Fig. 56.—*Automolis neritosia*, ♂. ½.

underside; hind wing with patch of androconia in cell on upperside, the costa highly lobed: vein 5 from well above angle, 6, 7 stalked, 8 from before end of cell.

♂. Head and thorax pale red-brown; palpi and basal joint of antennæ behind crimson; metathorax with fuscous patch; pectus

and legs white, the fore femora crimson above; abdomen crimson, the ventral surface white. Fore wing pale red-brown, the costal edge white with a fine crimson streak below it except towards apex, the base of inner margin crimson, a large pale yellow patch on terminal area its inner edge running obliquely from below costa just beyond the cell to tornus and the upper side indented by a triangular brown patch from apical part of costa with its apex on vein 6, edged by dark brown except below postmedial part of costa and its inner edge slightly bent outwards at vein 3. Hind wing pale yellow faintly tinged with crimson along the veins and on inner area.

Hab. Brazil, São Paulo, type † ♂ in Coll. D. Jones. *Exp.* 30 millim.

*1249 *a*. Automolis multicolor.

Automolis multicolor, Roths. A. M. N. H. (8) iv. p. 224 (1909), & Nov. Zool. xviii. pl. 6. f. 18.

Hind wing with veins 2 and 3 stalked.

♂. Head fulvous orange; frons white with fuscous spots at sides; palpi fuscous, white at base; antennæ brown; tegulæ orange, white at base and with fuscous spots at outer edge; thorax fulvous, the patagia white at base, the pro- and metathorax with white patches with paired black spots on them; pectus white with some pale crimson below the wings; coxæ yellow; legs white, grey, and pale crimson, the tibiæ with blackish spots; abdomen

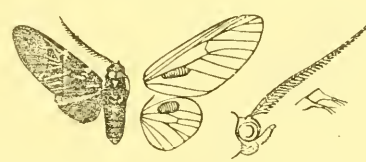

Fig. 57.—*Automolis multicolor*, ♂. ½.

crimson, the ventral surface white at base and yellowish towards extremity. Fore wing fulvous; an oblique fuscous brown band from base of costa, where it is broad, to inner margin before middle, with white bar on its outer edge towards costa and white streaks at discal fold and vein 1; a broad fuscous brown band from costa beyond middle to tornus, expanding outwards at costa, the veins on it streaked with whitish, a small white spot on its inner edge at costa. Hind wing crimson, the costal area yellow.

Hab. Br. Guiana, Potaro (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

*1249 *b*. Automolis luteorosea.

Automolis luteorosea, Roths. Nov. Zool. xvi. p. 40, pl. 5. f. 40 (1909).

♀. Head orange-yellow, the palpi white, blackish behind, the frons white with brown bar above, the antennæ brown; tegulæ

white with brown line at base and spot on outer edge; patagia yellow; thorax brown; pectus white; fore coxæ yellow; legs white with some brown, the fore tibiæ barred with brown; abdomen crimson, white below. Fore wing white; some crimson at base of inner margin; an obliquely curved brown band from base of costa to inner margin interrupted by white streaks on the veins; a rounded orange-yellow medial patch in and below the cell; a broad brown band from costa beyond middle to terminal part of inner margin, interrupted by white streaks on the veins and a discoidal striga, its inner edge slightly excurved at median nervure, its outer edge incurved at vein 5 and slightly below vein 3; the terminal area yellow leaving some white beyond the brown band. Hind wing crimson, the underside with the costal area yellow.

Hab. Br. Guiana, R. Demerara, Christianberg, type † ♀ in Coll. Rothschild. *Exp.* 30 millim.

1249 *c*. Automolis ochreata.

Automolis ochreata, Schaus, Pr. U.S. Nat. Mus. xxix. p. 214 (1905); Roths. Nov. Zool. xvi. pl. 5. f. 30.

Fore wing of male without swelling and tuft of hair at base of costa; large elliptical patches of dark brown scales below middle of cell of fore wing on underside and below costa of hind wing on

Fig. 58.—*Automolis ochreata*, ♂. ½.

upperside; patches of white scales on fore wing above middle of vein 1 on underside and on hind wing in and beyond end of cell on upperside; hind wing with veins 2, 3 from a point, 5 from above middle of discocellulars.

♂. Head yellow, 1st joint of palpi and frons white, 2nd and 3rd joints of palpi brown; tegulæ and shoulders white with blackish spots at sides; thorax yellow, the metathorax white with pair of black points; pectus and legs yellow and white; abdomen yellow, dorsally tinged with crimson on basal half. Fore wing orange-yellow; an oblique white antemedial band with series of black spots on it, rather constricted at middle and conjoined at inner margin to an erect postmedial white band with series of elongate black marks on it in the interspaces, those at end of cell bisected by white on the discocellulars. Hind wing yellow, the inner half tinged with crimson and with deeper crimson streak below the cell.

Hab. Fr. Guiana, Maroni R. (*Schaus*), 1 ♂. *Exp.* 32 millim.

*1249 *d*. Automolis asteroides.

Automolis asteroides, Schaus, Pr. U.S. Nat. Mus. xxix. p. 214 (1905).

Antennæ of male serrate and fasciculate; fore wing with small gland and tuft of hair at base of costa and large patch of androconia below the cell on underside; veins 4, 5 shortly stalked and 7, 8, 9, 10 on a very long stalk; hind wing with the base of costa fringed with hair, a large round patch of dark scales in cell on upperside.

♂. Head and thorax yellowish white suffused with brown; patagia with small white spots; abdomen brown with large crimson subdorsal patches on medial segments, the ventral surface white. Fore wing white suffused with brown; three white points at base, two obliquely placed below base of vein 2, the terminal

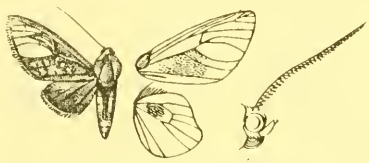

Fig. 59.—*Automolis asteroides*, ♂. ½.

half of inner area with pale striæ; the interspaces of terminal area from vein 8 to 3 very pale yellow leaving the veins brown, a small spot on termen below vein 3, the brown area running out to an acute point on vein 5. Hind wing white suffused with brown. Underside white; fore wing with the cell and area just below and beyond its extremity dark brown.

Hab. Fr. Guiana, St. Laurent Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 30 millim.

*1249 *e*. Automolis vinasia.

Automolis vinasia, Schaus, A. M. N. H. (8) vi. p. 201 (1910).

Antennæ of male serrate and fasciculate; fore wing with small gland and tuft of hair at base of costa; veins 4, 5 from cell; 7, 8, 9, 10 normally stalked; hind wing with the costa highly arched, a small patch of ochreous androconia in the cell on upperside.

♂. Head and thorax whitish with some brown suffusion, the tegulæ with dorsal and lateral pale brown patches, the patagia brown with two white spots; palpi white with some yellow-brown in front towards tips; antennæ brown, white towards tips; pectus and legs pure white, the fore femora brown on inner side; abdomen deep crimson, the extremity yellow, the anal tuft and ventral surface white. Fore wing brown, the apical area yellow from costa above end of cell to termen at vein 3 below which there is a short oblique

yellow streak, the outer edge of the brown area irregular, angled outwards below costa, produced between veins 5 and 4; the veins with slight pale streaks, on the yellow area with brownish streaks; a white point at base and subbasal points below costa and in cell; a short white streak above middle of median nervure; a very slight

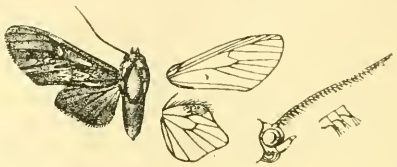

Fig. 60.—*Automolis rinasia*, ♂. ½.

and extremely dentate line from below vein 4 beyond the cell to middle of inner margin, the extremities of its teeth, and the tooth towards base in submedian fold forming small lunules. Hind wing brown, the costal area whitish; the underside whitish, the costal and inner areas suffused with brown, some yellowish in cell and a brown discoidal spot.

Hab. Costa Rica, Juan Vinas (*Schaus*), type † ♂ in U.S. Nat. Mus. *Exp.* 38 millim.

*1249*f*. Automolis prumaloides.

Automolis prumaloides, Roths. Nov. Zool. xvi. p. 38, pl. 5. f. 38 (1909).

♂. Head and thorax red-brown with a greyish tinge; palpi white in front except towards tips; antennæ white at tips; pectus and legs white; abdomen crimson, the ventral surface white. Fore wing red-brown extending on costa to middle and thence obliquely to termen at vein 2, its outer edge darker, excurved at veins 5, 4 and angled at vein 3; the apical area semihyaline yellow; veins 7, 8 dark brown and veins 6 to 3 with short dark subterminal streaks. Hind wing yellow suffused with crimson except the costal area, inner margin, and cilia; the underside white.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

*1249*g*. Automolis irregularis.

Idalus irregularis, Roths. Nov. Zool. xvi. p. 23, pl. 4. f. 9 (1909).

Fore wing of male with large patch of androconia on inner medial area on underside; hind wing with large patch below middle of costa on upperside.

♂. Head and thorax yellow mixed with scarlet; palpi scarlet at sides and brownish at tips; antennæ brown, scarlet at base; pectus and legs yellowish tinged with brown, the fore coxæ suffused with

scarlet; abdomen scarlet, the extremity and ventral surface yellow. Fore wing yellow suffused with red-brown; scarlet streaks below base of vein 1 and above basal half of inner margin; an antemedial streak in cell on a yellow fascia defined at extremities by slight dark brown marks; the medial part of submedian fold with scarlet streak and a slight streak above middle of vein 1 traversing an irregular yellow mark defined by brown below the cell; a yellow spot in end of cell with scarlet streak at middle, defined by blackish except above where there is a yellow and scarlet streak; minute black

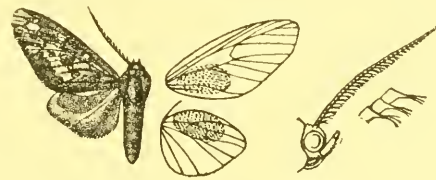

Fig. 61.—*Automolis irregularis*, ♂. ½.

dashes in and beyond lower angle of cell; the veins of terminal area streaked with scarlet, the streaks on veins 6, 7 interrupted at middle; a small lunulate yellow mark defined by brown on base of vein 6, an irregularly waved oblique band between veins 5 and 1 and a slight angled dark mark above inner margin; a subterminal series of small dark-edged yellow spots between veins 8 and 3, the spot below vein 6 wholly dark and a terminal series of small spots from apex to vein 3. Hind wing pale yellow, the patch of androconia deeper yellow; slight crimson streak on inner area.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 28 millim.

*1249 *h*. Automolis occendeni.

Automolis ockendeni, Roths. Nov. Zool. xvi. p. 40, pl. 5. f. 41 (1909).

Antennæ of male bipectinate to two-thirds length, the apical part with bristles and cilia; fore wing with the cilia formed of

Fig. 62.—*Automolis occendeni*, ♂. ½.

large rough scales except at apex; hind wing with small round patch of androconia in cell on upperside, veins 3 and 5 from angle of cell, 6, 7 coincident, 8 from angle.

♂. Head, thorax, and abdomen velvety black; palpi with white points at extremities of 1st and 2nd joints. Fore wing velvety black; a very oblique moderately broad yellow band from costa just beyond middle to beyond vein 2 near termen; the rough scales of cilia greyish. Hind wing black, the costal area to just below cell scaleless above with the small round patch of pale androconia on it in end of cell.

Hab. Peru, R. Inambari, La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 38 millim.

Subsp. 1. *lativitta*, Roths. Nov. Zool. xvi. p. 40, pl. 5. f. 42 (1909).

Fore wing with the orange band much broader; palpi with white point at extremity of 1st joint only.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild.

1250. **Automolis reducta**, insert :—

Automolis reducta, sordida, Roths. Nov. Zool. xxiv. p. 480 (1917).

The S. Brazil form with the costal fascia on fore wing and subterminal band broader.

Hab. Brazil, Rio Janeiro, type † ♂ in Coll. Rothschild.

*1250 *a*. **Automolis fassli.** (Plate XLV. fig. 28.)

Automolis fassli, Dogn. Hét. Nouv. Am. Sud, i. p. 8 (1910).

♂. Head, thorax, and abdomen orange-yellow; palpi black except towards base; antennæ blackish; femora at extremities, the tibiæ and tarsi fuscous. Fore wing pale orange-yellow, the costal edge black, the cilia tinged with fuscous. Hind wing pale orange-yellow. Underside of fore wing with the costa fuscous, the apical area irrorated with fuscous.

Hab. Colombia, San Antonio (*Fassl*), type † ♂ in Coll. Dognin. *Exp.* 34 millim.

*1251 *a*. **Automolis metacrinis.**

Automolis metacrinis, Roths. Nov. Zool. xvi. p. 37, pl. 5. f. 27 (1909).

♂. Head and thorax white; palpi blackish behind; frons with lateral blackish spots; antennæ brown; tegulæ tinged with crimson in front and with crimson patch at tips, the patagia with crimson fascia on upper edge; prothorax with pair of black spots; pectus and legs white, the throat crimson, the fore tibiæ with black ring at extremity; abdomen crimson, the extremity and ventral surface white. Fore wing white, the terminal half semihyaline except at costa and inner margin; a slight crimson streak at base of inner margin; an oblique subbasal band formed of black streaks in the interspaces from below costa to above inner margin, narrowing below; an obliquely curved medial black band formed of streaks

and bars in the interspaces from costa to above inner margin, the veins and discocellulars on it white; some yellow suffusion in and below end of cell. Hind wing semihyaline white, the inner area faintly tinged in parts with crimson.

Hab. Colombia, Sta. Marta, Onaca (*Engelke*), type † ♂ in Coll. Rothschild; Ecuador, Paramba, S. Javier, R. Cachabi, R. Cayapas. *Exp.* 44 millim.

*1252 *a*. Automolis pulverosa.

Automolis pulverosa, Schaus, Pr. U.S. Nat. Mus. xxix. p. 215 (1905).

Antennæ of male with bristles and cilia; fore wing with tuft of long white hair below the cell on underside; hind wing with patch of androconia below costa on upperside.

♂. Head and thorax white, the outer edge of patagia and dorsum of thorax tinged with pale brown; tegulæ with brown patches at base and middle, patagia with brown streaks; tibiæ and tarsi tinged with brown; abdomen orange, the extremity white and pale brown, the ventral surface white. Fore wing pale brown with white streaks on terminal half of median nervure, in submedian fold, on inner margin and terminal part of veins except towards

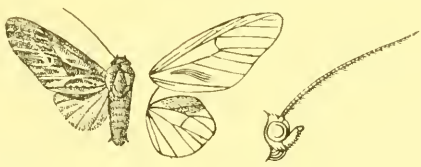

Fig. 63.—*Automolis pulverosa*, ♂. ½.

apex, the rest of the veins with series of white points; a subbasal white line from costa to submedian fold; discocellulars white; some fuscous suffusion beyond lower angle of cell; postmedial line represented by slight white streaks below costa and a diffused line from vein 5 to submedian fold, angled outwards at vein 4, then very oblique. Hind wing semihyaline white tinged with yellow on medial part of terminal area and towards tornus.

Hab. Surinam, Geldersland, type † ♂ in U.S. Nat. Mus. *Exp.* 34 millim.

*1252 *b*. Automolis albescens.

Eupseudosoma albescens, Roths. Nov. Zool. xvi. p. 26, pl. 4. f. 25 (1909).

Antennæ of female with serrations and bristles; hind wing with veins 3 and 5 from angle of cell, 6, 7 coincident, and 8 shortly stalked with them.

♀. Head and thorax white, the upper part of frons yellow, the dorsum of thorax faintly tinged with brown; palpi brownish

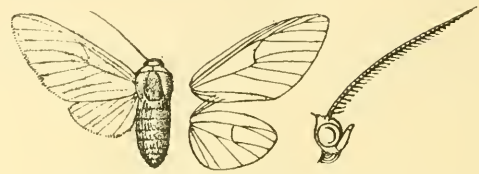

Fig. 64.—*Automolis albescens*, ♀. ½.

behind; antennæ brownish except towards base: fore legs pale brown; abdomen white, dorsally faintly tinged with brown. Wings pure semihyaline white.

Hab. Surinam, Maroewyn Valley, Aroewarwar Creek (*Klages*), type † ♀ in Coll. Rothschild; Br. Guiana. *Exp.* 40 millim.

*1253 *a*. Automolis leucapera. (Plate XLV. fig. 29.)

Automolis leucapera, Dogn. Hét. Nouv. Am. Sud, vii. p. 16 (1914).

♀. Head orange, the palpi brown, crimson at base, the antennæ brown; thorax creamy white, the tegulæ black in front, the prothorax with black bar, the meso- and metathorax with paired black spots; pectus with some crimson at sides; legs brown, the femora with white streaks; abdomen crimson, the ventral surface white. Fore wing pale brownish fulvous, the interspaces strongly streaked with black; the apical area creamy white from costa just beyond middle to termen below vein 3, its lower edge sinuous. Hind wing pale brown tinged with fuscous especially towards termen; the underside with the costal area suffused with fuscous brown.

Hab. Colombia (*Fassl*), type † ♀ in Coll. Dognin. *Exp.* 46 millim.

*1253 *b*. Automolis submarginalis.

Prumala submarginalis, Roths. Nov. Zool. xvi. p. 24, pl. 4. f. 16 (1909).

♂. Head and thorax yellow; palpi crimson, brown in front; frons with crimson bars at middle and above; antennæ brown, white at tips and the basal joint crimson; tegulæ and patagia with crimson annuli; shoulders purple-brown; vertex of thorax with brown and crimson stripe; pectus and legs white, the fore legs crimson in front; abdomen crimson, the ventral surface white. Fore wing purple-brown to middle of costa and termen at submedian fold, with sinuous crimson line on outer edge and the veins and submedian fold streaked with crimson; a small yellow spot with crimson streak on it at middle of cell; the apical half yellow; a small crimson annulus at upper angle of cell; a diamond-shaped purple-

brown postmedial mark edged with crimson on vein 6 and a similar mark beyond it below the costa with a series of minute crimson annuli below it to vein 3; a subterminal series of minute crimson annuli with brown centres from costa to vein 3. Hind wing yellow, the veins tinged with crimson; a small brown mark at extremity of vein 2.

Hab. Brazil, Minas Geraes (*Kennedy*), type † ♂ in Coll. Rothschild. *Exp.* 26 millim.

*1253 *c.* Automolis sanguistrigata. (Plate XLV. fig. 30.)

Automolis sanguistrigata, Dogn. Hét. Nouv. Am. Sud. i. p. 7 (1910).

♂. Head and tegulæ yellow; palpi white in front and with black mark on 2nd joint behind; frons crimson above; antennæ brownish with the basal joint crimson; vertex of head with slight crimson streak; tegulæ with slight diamond-shaped crimson mark at middle, and crimson and brown outer edge; thorax purplish brown and white, the outer edge and tips of patagia crimson; shoulders purplish brown; pectus white with crimson streaks below the wings; legs white, the fore legs tinged with crimson and with black streak on inner side of femora, the last joint of tarsus crimson; abdomen crimson, the ventral surface white. Fore wing purplish grey, the apical third pale yellow; the veins and submedian fold on the grey area streaked with crimson, a crimson fascia on base of inner margin, the outer edge of the grey area excurved beyond lower angle of cell; a slight crimson spot beyond upper angle of cell, with a faint greyish spot beyond it on vein 6; a faint curved greyish subterminal line from below costa to vein 4 and a series of minute crimson streaks on the veins just before termen. Hind wing pale yellowish, the inner area tinged with crimson, the patch of androconia chalky white, some slight brownish marks on middle of termen. Underside yellow; fore wing with the basal half of costal area brownish, the brown then extending to tornus on outer edge of the grey area of upperside.

Hab. Fr. Guiana, Nouveau Chantier (*Le Moult*), type † ♂ in Coll. Dognin. *Exp.* 32 millim.

*1253 *d.* Automolis sordida.

Prumala sordida, Roths. Nov. Zool. xvi. p. 25, pl. 4. f. 18 (1909).

♂. Head and thorax yellow; palpi blackish behind; antennæ tinged with brown, white at tips; tegulæ and thorax with some crimson, the patagia with crimson lines near edges, the shoulders purple-brown; pectus and legs white, the fore femora brown and crimson at extremities; abdomen crimson, whitish towards extremity, the ventral surface white. Fore-wing purple-grey to middle of costa and termen at vein 2, with a sinuous crimson outer edge and the veins on it slightly streaked with crimson; a crimson streak on base of inner margin followed by some blackish, a slight

dark mark at middle of cell followed by a crimson streak and a dark mark above middle of vein 1 with a crimson streak before it in submedian fold; the apical half yellow; a minute brownish mark at upper angle of cell and postmedial spot on vein 6; an indistinct curved series of small brownish spots from costa to vein 3 and a subterminal series of minute spots from costa to vein 3. Hind wing pale yellow, the inner area slightly tinged with crimson especially below base of cell; a slight brown terminal band from apex to below vein 2.

Hab. Peru, Carabaya, R. Huacamayo (*Ockenden*), type † ♂ in Coll. Rothschild; Paraguay, Sapucay (*Foster*). *Exp.* 30 millim.

1254. **Automolis flavescens**, del. *A. asara*.

*1254 *a*. Automolis asara.

Automolis asara, Druce, P. Z. S. 1883 p. 382, pl. 40. f. 7.

♂. Head and thorax pale yellow, antennæ brownish except at base, the tips white; metathorax with grey patch; legs spotted with brown; abdomen orange. Fore wing pale yellow; a fuscous antemedial patch on vein 1, a diffused patch at lower angle of cell and a patch at tornus. Hind wing pale yellow, the terminal area suffused with fuscous.

Hab. Ecuador, Sarayacu (*Buckley*), type † ♂ in Coll. Joicey. *Exp.* 30 millim.

*1254 *b*. Automolis pseudoflavescens.

Automolis pseudoflavescens, Roths. Nov. Zool. xvii. p. 20, pl. 13. f. 34 (1910).

♂. Head and thorax orange-yellow, the metathorax with two slight blackish marks; palpi with the 2nd joint blackish; antennæ brownish except towards base; fore femora blackish above, the fore tibiæ and the tarsi ringed with black; abdomen orange-yellow, dorsally suffused with brown except at extremity. Fore wing orange-yellow with a large rounded pale red-brown patch on medial area from inner margin to subcostal nervure. Hind wing white, the inner area slightly tinged with brown.

Hab. Brazil, Minas Geraes, Reto, type † ♂ in Col. Rothschild. *Exp.* 30 millim.

*1255 *a*. Automolis cruenta.

Automolis cruenta, Roths. Nov. Zool. xvi. p. 38, pl. 5. f. 39 (1909).

♂. Head, thorax, and abdomen brilliant crimson; antennæ brown except the shaft towards base, the tips whitish. Fore wing brilliant crimson; the costa blackish to beyond middle; a shade formed by blackish irroration below costa and beyond upper angle

of cell; an oblique antemedial band formed by leaden fuscous on deep crimson met at inner margin by a similar band from middle of discocellulars, a yellowish patch between the two bands; a round semihyaline white spot beyond the cell between veins 5 and 3 with a curved blackish streak above it to termen at vein 4; the veins beyond the cell with slight blackish streaks; the subterminal area with yellowish patches below apex and middle; cilia blackish. Hind wing crimson with the disk whitish tinged with crimson.

Hab. Brazil, Up. Amazons, Fonte Boa; Peru, Carabaya, R. Huacamayo. La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 34 millim.

*1255 *b*. Automolis dognini.

Automolis dognini, Roths. Nov. Zool. xvii. p. 19, pl. 13. f. 10 (1910).

♀. Head and thorax white tinged with yellow; palpi blackish except in front; frons with lateral black bars; antennæ black except above towards base; tegulæ deep crimson at tips; patagia suffused with crimson except at outer edge; mesothorax with black bar; metathorax with pair of black points; pectus crimson in front and below the shoulders; legs streaked with brownish; abdomen crimson with small dorsal white spots on basal segments and segmental lines on terminal segments, the ventral surface white. Fore wing white, the antemedial area yellow except towards costa and inner margin and the whole terminal area yellow; two black points at base and four blue-black streaks on basal area from costa to submedian fold, the streak in cell bifid, a slight crimson subbasal mark on inner margin followed by a small black spot above the margin; a nearly erect blue-black medial band divided into streaks by the white veins, the discocellulars also white, the band hardly dilated at costa. Hind wing white with a slight crimson tinge at base of inner area.

Hab. Peru, Carabaya, La Oroya (*Ockenden*), type † ♀ in Coll. Rothschild. *Exp.* 46 millim.

*1255 *c*. Automolis decisa. (Plate LXV. fig. 19.)

Automolis decisa, Roths. Nov. Zool. xxiv. p. 480 (1917).

♀. Head and thorax white, the lower part of frons black with some white at middle, some fulvous yellow scales between antennæ, patches on tegulæ at middle and tips, on patagia and on dorsum of thorax, the patagia with some crimson at tips, the mesothorax with black patch and the metathorax with two pairs of small black spots, the antennæ black, white at tips, the palpi black with some white at base and grey in front; abdomen crimson with small dorsal white spots on three basal segments, segmental lines on 3rd to 5th segments and the terminal segments white; pectus, legs, and ventral surface of abdomen white, minute crimson spots

below the shoulders, the fore coxæ with some yellow and crimson, the fore femora at extremity, tibiæ, and all the tarsi suffused with fuscous. Fore wing white; two short black streaks below base of costa, two longer streaks in base of cell, a stronger streak below the cell with two small spots between its extremity and inner margin; some yellow at base of inner margin and beyond the streak below the cell; an oblique black medial band interrupted by grey streaks on the veins, at submedian fold and a line on discocellulars, expanding somewhat at costa and its outer edge slightly excurved below vein 5. Hind wing white with a faint crimson tinge on inner area; underside white.

Hab. Fr. Guiana, St. Jean Maroni, type † ♀ in Coll. Rothschild. *Exp.* 42 millim.

1255 *d*. Automolis iragorri.

Automolis iragorri, Dogn. Ann. Soc. Ent. Belg. xlvi. p. 231 (1902).

Antennæ of male with serrations ending in a bristle; hind wing with veins 6, 7 coincident, 8 from middle of cell; of female with veins 6, 7 on a very long stalk, 8 from them just beyond angle of cell.

Head and thorax white, sides of neck, tips of tegulæ, and upper edge of patagia crimson, the last with fulvous yellow patches near upper edges; abdomen white, dorsally crimson except at extremity and with small white dorsal spots on basal segments. Fore wing pale yellow, the basal area, costa to near apex and inner margin

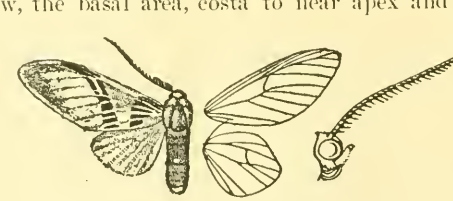

Fig. 65.—*Automolis iragorri*, ♂. ½.

white; the basal area with two black streaks below costa, two in cell, two in submedian interspace, and one above inner margin, those on inner half not reaching the base; a medial black band on a white ground, expanding at costa and interrupted by white on the veins and in submedian fold; cilia white. Hind wing pure white, the inner area tinged with crimson.

Hab. Colombia; Ecuador; Venezuela, Merida, 1 ♂, 1 ♀; Brazil, Rio Janeiro, Tijuca (*Wagner*), 1 ♀. *Exp.*, ♂ 44, ♀ 48 millim.

*1255 *e*. Automolis tenuifascia. (Plate XLVI. fig. 1.)

Automolis tenuifascia, Dogn. Hét. Nouv. Am. Sud, iii. p. 8 (1911).

♀. Head and thorax white mixed with some yellow, the patagia with crimson hair at tips; palpi black behind; antennæ black

except towards base; fore femora blackish above, the tibiæ and tarsi banded with black; abdomen white, a dorsal crimson patch at base, the other segments, except the anal segment, with narrow crimson bands, black segmental lines, and lateral crimson patches. Fore wing white; a short crimson streak on base of inner margin; short subbasal black streaks below costa and cell and two longer streaks in cell; an antemedial black point below vein 1; a quadrate yellow patch in end of cell and a patch below origin of vein 2; a narrow oblique black medial band formed by two short black streaks below costa, a point beyond upper angle of cell, striæ on each side of upper discocellular and points on each side of lower discocellular, a point at lower angle of cell, and small spots between lower angle and inner margin; the terminal area occupied by an elliptical yellow patch leaving the costa, termen, and inner margin white. Hind wing white with slight crimson streak below base of cell.

Hab. COLOMBIA, Cali, Yuntas, type † ♀ in Coll. Dognin. *Exp.* 42 millim.

1255*f*. **Automolis monostidza.** (Plate XLVI. fig. 2.)

Automolis monostidza, Hmpsn. Nov. Zool. xxiii. p. 231 (1916).

♀. Head and thorax white with some yellow and crimson scales especially on thorax, the tips of tegulæ, upper edge of patagia at middle, and outer edge towards extremity crimson, the mesothorax with pair of small black spots; antennæ fuscous brown except at base; frons with brown bar above; palpi grey-brown except the basal joint, the 2nd joint black above; pectus white, crimson in front and below the wings; legs grey-brown in front, the tibiæ black at extremities, the fore coxæ with crimson patches; abdomen crimson with white segmental lines, the extremity and ventral surface white. Fore wing yellow-buff, the basal and costal areas and inner margin white; some crimson at base of inner margin; the interspaces of basal area with grey-black streaks, reduced to subbasal spots above and below vein 1 and the two streaks in the cell longer; an incurved medial band formed by grey-black streaks below costa, bars on each side of the discocellulars and patches below the cell divided by white streaks on the veins, the band produced at costa and defined on each side by white below the cell; a small rather elongate grey-black subterminal spot defined on inner side by white above vein 5; the termen and cilia white. Hind wing white with a streak of crimson suffusion in submedian interspace. Underside white; fore wing with the band showing faintly and with slight blackish marks on each side of the discocellulars, the subterminal spot black.

Hab. PERU. Yahuarmayo, 1 ♀ type. *Exp.* 42 millim.

*1256 *a*. Automolis aureogrisea.

Automolis aureogrisea, Roths. Nov. Zool. xvi. p. 38, pl. 5. f. 36 (1909).

Antennæ of male minutely serrate.

♂. Head and thorax orange, the metathorax with fuscous patch; palpi black behind and grey in front except the 1st joint; antennæ black except at base; fore femora and the tibiæ black above except at base; tarsi black; abdomen orange with a slight brownish

Fig. 66.—*Automolis aureogrisea*, ♂. ½.

tinge on dorsum. Fore wing orange with a large bluish fuscous elliptical patch on inner area from near base to termen extending to the cell and above vein 4. Hind wing pale yellowish suffused with brown; the underside with the costal area and cell orange.

Hab. Peru, Carabaya, S. Domingo (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 34 millim.

*1257 *a*. Automolis sordidipennis. (Plate LXV. fig. 20.)

Automolis sordidipennis, Roths. Nov. Zool. xxiii. p. 266 (1916).

♀. Head, thorax, and abdomen black, the tegulæ and patagia creamy yellow edged with black, the abdomen with a greenish gloss except the hair on dorsum, the anal tuft orange; frons greyish; palpi with the 1st joint orange in front; coxæ and ventral surface of abdomen orange. Fore wing brownish grey with a violaceous tinge, the veins and streaks in the cell and submedian fold black-brown; cilia fuscous brown towards tornus. Hind wing brownish white with a violaceous tinge, the veins, hair on inner area, and cilia black-brown.

Hab. Venezuela, Esteban Valley, Las Quiguas (*Klages*), type † ♀ in Coll. Rothschild. *Exp.* 56 millim.

*1257 *b*. Automolis leucoptera, n. n.

Automolis albescens, Roths. Nov. Zool. xvi. p. 36, pl 5. f. 26 (1909) nec p. 26.

♀. Head and thorax white with a faint brownish tinge; palpi crimson above; a crimson bar between antennæ which are black; fore coxæ in front and femora above crimson, the tibiæ and tarsi brown above, the former with slight crimson streak at extremity;

hind femora and tarsi brown, the former white at extremity with a crimson patch, the tibia white with some crimson at extremity; abdomen white suffused with reddish brown. Fore wing white faintly tinged with brown. Hind wing semihyaline brownish white.

Antennæ with short branches; hind tibiæ (?) without spurs; hind wing with vein 8 from middle of cell.

Hab. Br. Guiana, type † ♀ in Coll. Rothschild. *Exp.* 90 millim.

*1257 *e*. **Automolis surinamensis.** (Plate XLVI. fig. 3.)

Automolis surinamensis, Roths. Nov. Zool. xviii. p. 158 (1911).

♀. Head, thorax, and abdomen white, the head and thorax slightly tinged with red-brown; antennæ with the branches brownish; fore legs crimson on inner side (mid and hind legs wanting). Wings uniform pure white.

Antennæ bipectinate with short branches on basal half; hind wing with vein 6 forking just before termen on both sides.

Hab. Surinam, Maroewyn Valley, Aroewarwar Creek (*Klages*), type † ♀ in Coll. Rothschild. *Exp.* 62 millim.

*1257 *d*. **Automolis stenotis.** (Plate XLVI. fig. 4.)

Automolis stenotis, Dogn. Ann. Soc. Ent. Belg. lii. p. 154 (1908).

♂. Head and thorax fulvous yellow; abdomen orange-yellow, the ventral surface pale yellow. Fore wing uniform fulvous yellow, roughly scaled. Hind wing yellowish white.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in Coll. Dognin. *Exp.* 40 millim.

*1257 *e*. **Automolis excavata.** (Plate XLVI. fig. 5.)

Automolis excavata, Schaus, A. M. N. H. (8) vi. p. 202 (1910).

♀. Head, thorax, and abdomen pale crimson; palpi whitish in front; ventral surface of abdomen whitish. Fore wing pale crimson tinged with brown; some pale crimson on base of inner margin; a small subbasal pure white spot above vein 1; small antemedial pale crimson spots below the cell and above vein 1; a small discoidal spot, spot below end of cell, and small spots centred with yellowish above and below vein 1; confluent postmedial hyaline spots between veins 5 and 3; a terminal series of lunulate hyaline spots edged with yellowish between veins 7 and 2. Hind wing crimson, the cilia yellowish; the underside pale with the costal area to beyond middle and cell whitish.

Hab. Costa Rica, Tuis (*Schaus*), type † ♀ in U.S. Nat. Mus. *Exp.* 60 millim.

1257*f*. Automolis pandiona.

Phalæna pandiona, Stoll, Pap. Exot. iv. p. 228, pl. 397 I (1782); Roths. Nov. Zool. xvi. pl. 6. f. 13; Kirby, Cat. Hét. p. 852.

Fore wing with the termen angled at vein 5, then oblique.

♂. Head yellow; palpi scarlet above; thorax fulvous; fore legs scarlet in front; abdomen yellow, dorsally suffused with flesh-pink. Fore wing fulvous, the veins streaked with red; a small white spot below base of cell; the medial area with three series of yellow spots edged with red between median nervure and vein 3 and inner

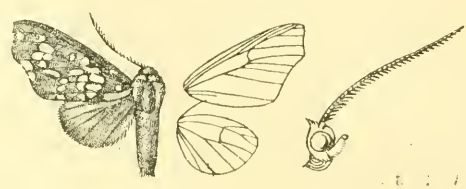

Fig. 67.—*Automolis pandiona*, ♂. ½.

margin, the 1st with three spots, the other two with four spots, a spot before them above inner margin and two above them in end of cell; four postmedial red-edged, semihyaline spots between veins 7 and 3, the upper one minute and the 2nd displaced inwards; a terminal series of pale spots in the interspaces. Hind wing yellow, the veins streaked with crimson.

♀. Fore wing with postmedial series of hyaline spots between veins 7 and 3, the spot above vein 4 elliptical, the others rounded; hind wing crimson.

Hab. Surinam; Fr. Guiana, St. Jean Maroni (*Schaus*), 1 ♂; Peru, R. Huacamayo (*Ockenden*), 1 ♂. *Exp.*, ♂ 34, ♀ 66 millim.

*1257*g*. Automolis subtruncata.

Automolis subtruncata, Roths. Nov. Zool. xvi. p. 41, pl. 6. f. 12 (1909).

♀. Head and thorax pale yellowish, the latter tinged with red-brown except the tegulæ; palpi crimson except in front; pectus and legs yellowish white, the fore femora and tibiæ crimson on inner side; abdomen whitish, dorsally slightly tinged with crimson, the extremity slightly with brown. Fore wing pale red-brown with a greyish tinge; a small subbasal yellow spot above vein 1; two pairs of small antemedial spots below the cell, the outer pair with a pair above them in the cell; a slight discoidal and four small spots between lower angle of cell and inner margin faintly defined by crimson; four hyaline postmedial spots defined by dark brown between veins 7 and 3, the upper and lower spots minute; three confluent pale yellow spots slightly defined by crimson on termen from below apex to below vein 6, small elongate spots above and below vein 4 and a slight bar-shaped spot below vein 3 extending on to the cilia. Hind wing yellowish white suffused

with pale crimson except the costal area and cell, the underside yellowish white.

Hab. Brazil, Sta. Catherina, type † ♀ in Coll. Rothschild. *Exp.* 56 millim.

1257 *h*. **Automolis rhodographa.** (Plate XLVI. fig. 6.)

Automolis rhodographa, Dogn. Hét. Nouv. Am. Sud, vii. p. 17 (1914).

♀. Head and thorax pale brick-red with some pale greyish brown on dorsum of thorax and at extremities of patagia; antennæ brownish except at base; palpi with some brownish at sides towards tips; pectus and legs ochreous tinged with red; abdomen pale brick-red with some brownish towards extremity, the ventral surface ochreous tinged with red. Fore wing pale red-brown suffused with violaceous grey; a white point below the cell near base; some pale brick-red on basal part of inner margin; an antemedial brick-red spot below the costa and an oblique series of three yellow spots defined by scarlet and on outer side by dark brown between the cell and inner margin; a medial series of two similar spots in the cell and three below it; a small discoidal spot and four lunulate spots more distinctly defined on outer edge by dark brown between the lower angle of cell and inner margin; a small postmedial hyaline spot above vein 6, more elongate spots above veins 5 and 4 and a small spot above 3, all defined by yellow, scarlet, and dark brown scales; a semihyaline spot defined by yellow, scarlet and dark brown before termen above vein 6 and smaller yellow and scarlet spots defined by dark brown above veins 4, 3, 2, all with similar spots beyond them on termen and cilia and another spot above vein 5. Hind wing pale scarlet with a small postmedial semihyaline spot above vein 3; cilia yellowish white; the underside yellowish white faintly tinged with red.

Hab. Peru, Yahuarmayo, 2 ♀, type † ♀ in Coll. Dognin. *Exp.* 54 millim.

1258 *a*. **Automolis rubrireta.** (Plate XLVI. figs. 7 ♂, 8 ♀.)

Automolis rubrireta, Dogn. Ann. Soc. Ent. Belg. l. p. 182 (1906).

♂. Head and thorax pale yellow, the latter suffused with pale rufous; palpi above and antennæ red-brown; abdomen yellow, dorsally tinged with crimson. Fore wing pale yellow, the costal area suffused with reddish brown, at base extending to vein 1, above which there is a small white spot defined by blackish near base; the veins streaked with crimson; antemedial, medial, postmedial, and subterminal highly dentate crimson lines with series of yellow lunulate marks between them; a brown band from costa beyond middle to tornus, expanding to the costal fascia and tornus; a waved crimson terminal line, a brown fascia from subterminal line to tips of cilia at vein 5, the cilia with series of brown spots. Hind wing pale yellow, the inner half suffused with pale crimson almost to cell; the termen suffused with crimson; cilia yellow with

brown points at the veins from apex to vein 2; the underside uniform pale yellow.

♀. Fore wing pale greyish brown with the spots in the cell slight, the lunulate markings on inner medial area much reduced and slightly defined by scarlet scales, postmedial semihyaline yellow spots defined by brown between veins 7 and 3, the two middle spots with some red scales in centres, the lowest spot lunulate, a series of small yellow spots before termen and on the termen and cilia from below apex to vein 2; hind wing pale crimson with some yellow in and beyond the cell.

Hab. Peru, Carabaya, type† ♂ in Coll. Dognin; Yahuarmayo, 2 ♂, 1 ♀. *Exp.*, ♂ 42, ♀ 66 millim.

1258 *b*. Automolis rhodocyma. (Plate XLVI. fig. 9.)

Automolis rhodocyma, Hmpsn. A. M. N. H. (8) iv. p. 357 (1909).

♂. Head, thorax, and abdomen yellow; the palpi scarlet behind, the antennæ brownish, the thorax tinged with rufous and the abdomen with scarlet; pectus, legs, and ventral surface of abdomen white. Fore wing yellow, the costal area and base except at inner margin rufous; the veins streaked with scarlet; a subbasal white point defined by brown above vein 1 and a brownish antemedial spot on subcostal nervure; antemedial line scarlet, strongly dentate, more strongly angled outwards above median nervure and inwards on vein 1, a brown point on it at subcostal nervure; an irregular rufous discoidal patch with yellowish point on it, slightly defined by scarlet except above where it is conjoined to the rufous costal area; postmedial line double, scarlet filled in with yellow, highly waved, obsolete on costal area, excurved to vein 4, then strongly incurved, a curved patch of rufous and dark brown beyond it from vein 3 to tornus where it expands to termen; an irregular rufous band beyond it from the costal area to vein 3 emitting streaks to termen on veins 5, 4, 3; a fine rufous terminal line; cilia chequered yellow and rufous, the tips dark at the rufous patches. Hind wing pale yellow, the inner half suffused with scarlet, the termen tinged with scarlet. Underside pale yellow, the costa of fore wing and some irregular subterminal marks rufous.

Hab. Peru, Huacabamba (*Ockenden*), 2 ♂ type. *Exp.* 40 millim.

1258 *c*. Automolis brunneireta. (Plate XLVI. fig. 10.)

Automolis brunneireta, Dogn. Ann. Soc. Ent. Belg. l. p. 182 (1906).

♂. Head and thorax pale yellow, the latter suffused with rufous and slightly tinged with crimson; palpi red-brown at sides, crimson above; antennæ red-brown; pectus and legs pale yellow, the fore femora and tibiæ brown on inner side; abdomen dorsally crimson with series of slight yellow segmental bars, the extremity red-brown, the ventral surface yellowish white. Fore wing red-brown with a greyish tinge; a small yellowish white subbasal spot above vein 1 defined by dark brown; two slight obliquely-placed yellow

streaks in cell near base; a yellow fascia with crimson mark on it on base of inner margin; a dentate brown antemedial line with series of small yellow lunules before it from below costa to above vein 1, defined by yellow on outer side in cell and with yellow lunules beyond it above and below submedian fold; a small yellow spot in end of cell, an elongate spot above base of vein 2 and spot above inner margin; a dentate brown postmedial line incurved below vein 4 with yellow spots before it between veins 6 and 3 and yellow lunules beyond it from vein 7 to inner margin; a terminal series of yellow spots, the spot above vein 6 larger, with spots beyond them on the cilia. Hind wing pale yellow, the inner area suffused with crimson almost to cell; a crimson terminal band diffused on inner side; cilia yellow with slight brown streaks at the veins; the underside uniform pale yellow.

Hab. Peru, Carabaya, type † ♂ in Coll. Dognin; R. Huacamayo *(Ockenden)*, 2 ♂. *Exp.* 42 millim.

*1258 *d.* Automolis metallica.

Automolis metallica, Joicey, A. M. N. H. (8) xviii. p. 57, pl. 14. f. 7 (1916).

♂. Head, thorax, and abdomen black-brown, the frons with metallic blue patch and orange bar above, orange spots behind antennæ, the tegulæ and patagia with broad orange stripes; the palpi orange at base and the 3rd joint orange in front; the fore legs striped with orange, the tarsi orange; the coxæ with some metallic blue; abdomen with oblique orange lateral bars at base and spot on following segment, then lateral series of metallic blue spots and dorsal spots on four terminal segments, the ventral surface with orange bands except towards extremity. Fore wing dark reddish brown, the veins streaked with yellowish, on costal area with grey, the costal edge orange towards base; an oblique orange fascia from discal fold well beyond the cell to vein 1 near base, towards which it expands; a subterminal orange spot above vein 6; cilia grey-brown. Hind wing with the costal half orange from inner margin near base to termen below apex, the tornal half dark red-brown. Underside of fore wing with the orange fascia broadly expanding to base of inner margin; hind wing with black patch on middle of costa and the orange extending above inner margin to towards tornus.

Ab. 1. Abdomen with hardly a trace of orange at base; fore wing with the oblique orange fascia only extending from vein 1 to 2 and narrower, then faintly traceable to vein 5.

Hab. Panama, Chiriqui, 2 ♂ type † in Coll. Joicey. *Exp.* 38 millim.

*1258 *e.* Automolis rosa. (Plate XLVI. fig. 11.)

Automolis rosa, Druce, A. M. N. H. (8) iii. p. 458 (1909).

♀. Head, thorax, and abdomen yellow; palpi, neck, and shoulders crimson; patagia and base of abdomen tinged with pink; antennæ brown; pectus with some crimson in front and at sides; legs tinged

with brown. Fore wing yellow; a patch of pink suffusion in basal half of submedian interspace, extending into middle of cell, where there is a slight dark point; some pink in and beyond upper angle of cell; a broad oblique pink band on postmedial area, extending along costa to apex and to near termen to below vein 4, its inner edge somewhat curved. Hind wing pale yellow.

Hab. W. Colombia, San Antonio (*Palmer*), type † ♀ in Coll. Joicey. *Exp.* 50 millim.

*1258*f.* Automolis baritioides.

Halisidota baritioides, Roths. A. M. N. H. (8) iv. p. 221 (1909); id. Nov. Zool. xvii. pl. 12. f. 11.

♂. Head and thorax yellow mixed with red-brown and some crimson, a slight dark streak on vertex of head; palpi yellow, crimson above; pectus and hind legs white, the fore femora crimson above, the fore and mid tibiæ and tarsi yellow mixed with brown and crimson and banded with fuscous, the hind tarsi banded with fuscous; abdomen pale crimson, yellow at base and white below. Fore wing pale yellow thickly irrorated with crimson, the veins streaked with pale red-brown, the postmedial area with numerous small dark brown spots between veins 8 and 3; antemedial line slight, brown towards costa and inner margin, crimson in submedian interspace, dentate and excurved to submedian fold, medial brown striæ from costa and inner margin; a small black-brown discoidal spot indented above and with brownish spot above it on costa: postmedial line indistinct, double, brown, waved, from vein 3 to inner margin; a slight waved brown subterminal line from costa to vein 2 with blackish points in the interspaces and more distinct black spots further from termen below veins 8 and 6; cilia yellow intersected with dark brown. Hind wing pale yellow, the costal area white, the inner half except the inner margin, the veins beyond lower angle of cell and the termen suffused with pale crimson; the underside white, a small brown discoidal spot, subterminal spots below apex and vein 2 and small terminal spots from apex to vein 2.

Hab. Brazil, Amazons, Pebas (*Mde. de Mathan*), type † ♂ in Coll. Rothschild, Fonte Boa. *Exp.* 38 millim.

1262 *a*. Automolis tuisana. (Plate XLVI. fig. 12.)

Automolis tuisana, Schaus, A. M. N. H. (8) vi. p. 200 (1910).

♂. Head and thorax white tinged with yellow except the outer edge of patagia and the metathorax which has a pair of black spots; palpi black above and at tips; frons with black bar; antennæ brown; tegulæ and patagia with black points on outer edge in front; pectus and legs white, the fore femora towards extremity on inner side and the tibiæ at sides striped with black, the tarsi fuscous at extremities, the mid tibiæ above at base black; abdomen

crimson with white dorsal spot at base, the extremity and ventral surface white. Fore wing with the basal half pale ochreous brown with black stripes in the interspaces and white patch at base of inner margin, its outer edge excurved at end of cell, bent outwards below vein 3 and ending at tornus, the apical half pure white with the costal edge black and a small rather elongate black subterminal spot below vein 6. Hind wing white, the inner half suffused with crimson. Underside of fore wing wholly white.

Hab. Costa Rica, Tuis (*Schaus*), 1 ♂. *Exp.* 46 millim.

*1263*a*. Automolis ochracea.

Automolis ochracea, Roths. Nov. Zool. xvi. p. 37, pl. 5. f. 29 (1909).

♂. Head, thorax, and abdomen orange-yellow; palpi whitish, black behind and at extremity of 2nd joint; frons and tegulæ pure white; pro- and metathorax with whitish patches with pairs of black spots on them; legs whitish tinged with brown; ventral surface of abdomen whitish. Fore wing orange-yellow; a triangular white patch extending on costa from base to before middle and narrowing to inner margin, two small black spots on it at base below costa followed by two subbasal spots with two small obliquely placed triangular blue-black spots in submedian interspace and a small spot above inner margin; a medial white band expanding widely at costa with a blue-black band near its outer edge formed by a slight streak below costa, then bar-shaped spots separated by the white discocellulars, then rather elongate spots separated by the white veins and submedian fold. Hind wing pale semihyaline ochreous.

Hab. Peru, Carabaya, S. Domingo (*Ockenden*), type † ♂ in Coll. Rothschild, R. Inambari, La Oroya. *Exp.* 34 millim.

1266*a*. Automolis pichesensis. (Plate XLVI. fig. 13.)

Idalus pichesensis, Dyar, Psyche, viii. p. 198 (1898).
Automolis coacta, Dogn. Ann. Soc. Ent. Belg. xlvi. p. 231 (1902).

♂. Head white, palpi behind and sides of frons blackish, vertex of head yellow; antennæ brown; thorax white, the tips of tegulæ, patagia, and metathorax deep crimson, orange patches on basal upper edge of patagia and mesothorax and a black bar on prothorax; pectus crimson in front; fore legs striped with fuscous; abdomen crimson, the extremity and ventral surface white. Fore wing pale yellow, the base white with seven black streaks extending further on inner margin where they meet the incurved medial band formed by short black streaks on a white ground, longer at costa and black bars on each side of discocellulars; costal area white; cilia white. Hind wing white, thinly scaled.

Hab. W. Colombia, San Antonio (*Palmer*), 2 ♂; Ecuador, Loja, type † ♂ *coacta* in Coll. Dognin; Peru, Piches. *Exp.* 32 millim.

*1266 *b*. Automolis noiva.

Automolis noiva, D. Jones, Trans. Ent. Soc. 1914 p. 11, pl. 1. f. 14.

♀. Head and thorax white irrorated with some brown and black scales; palpi with crimson mark on 1st joint, the 2nd joint crimson with a white spot and the 2nd and 3rd joints black at base; antennæ black below; tegulæ edged with crimson behind, the prothorax with crimson streak and the metathorax with two small crimson spots; legs yellow and white, the tibiæ and tarsi ringed with black and the tarsi crimson near extremities; abdomen white. Fore wing white; a yellow streak below costa; the veins streaked with black; a black streak in upper part of cell, forking in lower part but not reaching lower extremity; two fine streaks in basal half of submedian interspace; the discocellulars defined on each side by black. Hind wing white.

Hab. Brazil, Santos, Alto da Serra (*D. Jones*), type † ♀ in Coll. D. Jones. *Exp.* 48 millim.

*1266 *c*. Automolis dilucida.

Automolis dilucida, Roths. Nov. Zool. xvii. p. 26. pl. 13. f. 37 (1910)

♀. Head and thorax white faintly tinged with brown and with some crimson hair on outer edge of patagia; palpi with the 1st joint crimson behind, the 2nd and 3rd joints black behind; antennæ brown; fore coxæ and femora crimson in front, the tibiæ and tarsi spotted with black; abdomen pale crimson, the extremity brownish white, the ventral surface white. Fore wing brownish white, thinly scaled, traces of slight black streaks in interspaces of basal half; oblique black striæ before and beyond upper discocellular; traces of slight black streaks in the interspaces of terminal area ending in small triangular black spots from below apex to vein 3. Hind wing semihyaline white.

Hab. Peru, Perene R. (*Simon*), type † ♀ in Coll. Rothschild. *Exp.* 36 millim.

1266 *d*. Automolis formona. (Plate XLVI. fig. 14.)

Automolis formona, Schaus, Pr. U.S. Nat. Mus. xxix. p. 216 (1905).

♂. Head and thorax yellow slightly tinged with brown; patagia, meso- and metathorax with paired brown points, the last with fine dorsal crimson streak; abdomen crimson with some yellowish at base, the extremity and ventral surface yellowish. Fore wing yellow; the costal area slightly irrorated with brown, the veins streaked with pale reddish, vein 1 with diffused brown streak; some crimson on base of inner margin; small irregular brown-edged spots below cell before middle, in middle of cell, two in end of cell and one just beyond end; an oblique postmedial series of similar conjoined dentate spots and a subterminal series of very small somewhat lunulate spots and a terminal series of brown points. Hind wing yellow suffused with crimson except the costal area.

Hab. Fr. Guiana, St. Jean Maroni (*Schaus*), 1 ♂. *Exp.* 42 millim.

*1266 *c*. Automolis strigata.

Hæmaphlebia strigata, D. Jones, Trans. Ent. Soc. 1914. p. 11, pl. 1. f. 16.

♂. Head and thorax fulvous yellow, the palpi and antennæ brownish; the tegulæ, patagia, and dorsum of thorax streaked with pale crimson; pectus and legs ochreous, the latter tinged with brown; abdomen crimson, the ventral surface ochreous. Fore wing fulvous yellow, the veins defined on each side by crimson streaks; a crimson streak in cell, forking in its extremity; the costa suffused with grey-brown; an oblique irregular grey-brown streak from base of median nervure to middle of inner margin and thence to termen; an oblique antemedial series of slight black marks; two slight elongate brown spots defined by some black in middle of cell and two in its extremity conjoined to a short fascia beyond the cell; some crimson at middle of inner margin; a postmedial maculate brown band defined on inner side by slight black lunules, incurved from costa to vein 5 above which it is produced as a fascia to termen, then very oblique; an oblique subterminal series of small brown spots, a series before termen, and a series on the cilia conjoined to the spots before termen towards apex and tornus. Hind wing crimson with the costal area yellow; the underside ochreous.

Hab. S. Brazil, Santos, Alto da Serra (*D. Jones*), type † ♂ in Coll. D. Jones. *Exp.* 42 millim.

*1267 *a*. Automolis ignivena.

Automolis ignivena, Joicey, P. Z. S. 1917, p. 266, pl. 1. f. 7 (1918).

♀. Head and thorax pale yellow with patches of pale scarlet, the shoulders with some red-brown; abdomen crimson, the anal tuft white; lower part of frons and palpi white, the latter brown above; pectus, legs, and ventral surface of abdomen white. Fore wing pale red-brown, the area in and beyond end of cell suffused with dark brown conjoined to dark brown on terminal half of inner area, the costal edge pale; the veins streaked with scarlet; some pale scarlet in middle of cell, and a faint diffused dentate scarlet antemedial line from cell to inner margin; postmedial line scarlet, dentate, faint and diffused to below vein 4, then distinct and strongly dentate inwards at veins 3 and 2 and outwards below them, then angled inwards above vein 1 and with a small yellow mark on it at inner margin; the terminal area pale yellow to vein 3 with diffused pale scarlet streaks on the veins, its inner edge very irregular, bent outwards at vein 6 and more strongly between veins 5 and 4. Hind wing dark brown with a faint red tinge, the extreme base pale and the hair on inner margin whitish tinged with red. Underside dark brown; fore wing with some ochreous white in and below base of cell, the irregular terminal patch ochreous white.

Hab. Peru. Charapé R., Tabaconas (*Pratt*), type † ♀ in Coll. Joicey. *Exp.* 44 millim.

*1267 *b*. Automolis chrysopera. (Plate XLVI. fig. 15.)

Automolis chrysopera, Schaus, Pr. U.S. Nat. Mus. xxix. p. 217 (1905).

♀. Head and thorax yellow; palpi crimson behind; frons with two crimson bars; tegulæ with two curved crimson lines; patagia and thorax streaked with crimson; pectus and legs white, fore legs tinged with crimson in front; abdomen crimson, the ventral surface white. Fore wing dark brown, the veins, discal and submedian folds streaked with crimson with slight yellow streaks on them on medial area; the costal area from beyond middle and the terminal area down to vein 2 bright yellow indented by two brown and crimson spots below costa and with small crimson spots at end of veins, the yellow indenting the dark area below vein 4. Hind wing with the basal half pink, the terminal half fuscous.

Hab. Fr. Guiana, St. Laurent Maroni, type † ♀ in U.S. Nat. Mus. *Exp.* 26 millim.

*1269 *a*. Automolis subflammans.

Automolis subflammans, Roths. Nov. Zool. xvi. p. 41, pl. 6. f. 11 (1909).

♂. Head and thorax scarlet with a rufous tinge, the shoulders white, the dorsum of thorax with paired white fasciæ; palpi with the 3rd joint black; abdomen scarlet. Fore wing rufous; a white patch at base of costa; the inner area scarlet to beyond middle with two subbasal white spots above vein 1 and four spots on medial area above inner margin, the 4th larger; two rather elongate antemedial spots on costa and one above end of cell with some scarlet between and beyond them; a very irregular hyaline postmedial patch from below costa to below vein 4 with small rufous spots on it on the veins; the termen with four bar-shaped white spots between veins 4 and 1. Hind wing pale scarlet with a semihyaline white patch below and beyond lower angle of cell; cilia white; the underside whitish below the cell and beyond its lower angle to termen.

Hab. Colombia, Bogotá; Brazil, Sta. Catherina, type † ♂ in Coll. Rothschild. *Exp.* 58 millim.

*1269 *b*. Automolis fulminans. (Plate LXV. fig. 21.)

Automolis fulminans, Roths. Nov. Zool. xxiii. p. 266 (1916).

♀. Head, thorax, and abdomen bright scarlet; the tegulæ with small black spots defined by white, the patagia with white patches at base, the prothorax with pair of white spots, the mesothorax with pair of small black spots defined by white; antennæ rufous, the shaft whitish; palpi with black point at base of 2nd joint and the 3rd joint black; legs with the femoro-tibial joint and the base of tarsi black with a white point on them. Fore wing bright scarlet with a slight greyish tinge except on basal area and on costal area to beyond middle; a white patch at base, slight white

streaks in the interspaces of basal area to below the cell and a small subbasal spot above vein 1; obliquely-placed antemedial white spots below costa and in the cell, a pair of bars below submedian fold and a pair above inner margin with a small spot before them on the margin; an elongate medial white mark below costa and small spot above inner margin; a small postmedial spot below costa and irregular patch with some minute scarlet spots on it between veins 8 and 4, forming four lobes above and attenuate below. Hind wing uniform pale scarlet. Underside scarlet, the apical half of fore wing from middle of costa to tornus tinged with brown with the irregular postmedial patch as above.

Hab. S. Brazil, type † ♀ in Coll. Rothschild. *Exp.* 68 millim. This may possibly be the female of *A. subflammans*.

*1269 *c*. **Automolis perflammans.** (Plate XLVI. fig. 16.)

Automolis perflammans, Dogn. Hét. Nouv. Am. Sud, vii. p. 16 (1914).

♂. Head and thorax crimson with a slight brownish tinge; palpi with black points at sides of 1st and 2nd joints and the 3rd joint black; tegulæ with black spots near base, the shoulders and a pair of spots on prothorax pure white; fore femora black above with a white spot at base, the mid and hind femora and all the tibiæ and tarsi black at base with a white spot; abdomen brilliant crimson-scarlet with dorsal, sublateral, and ventral series of small black spots. Fore wing chocolate-brown suffused with crimson, the basal half of inner margin brilliant crimson-scarlet with an oblique series of six white spots above it, the basal spot on the costa and the fourth from base very small; an antemedial white spot on costa and small medial spot; a small oblique quadrate hyaline patch beyond the cell, somewhat forking above and constricted at vein 5, on which there is a point of the ground-colour on right side only, the inner arm of the patch white above and with small white spot above it on the costa; cilia with white spots from below vein 5 to below 2. Hind wing brilliant crimson-scarlet. Underside of fore wing brilliant crimson-scarlet to middle of costa and tornus, its outer edge irregularly sinuous and with small spot beyond it on the costa.

Hab. Fr. Guiana, Maroni, type † ♂ in Coll. Dognin. *Exp.* 50 millim.

1269 *d*. **Automolis divisa** (♂) trans. from *Amaxia*. no. 1242.

Automolis marcapata, Druce. A. M. N. H. (7) xx. p. 506 (1907) ♀.

♀. Hind wing with veins 6, 7 coincident and 8 stalked with them.

Head, thorax, and abdomen pale scarlet. Fore wing pale scarlet tinged with brownish grey leaving the veins of costal area scarlet; a small white spot at base of cell; an ill-defined incurved pale scarlet band from below costa at middle of cell to above inner margin where there is a diffused pale scarlet patch beyond it; a

large hyaline patch defined by deep red except above from below costa beyond middle to vein 3, its edges sinuous and its outer edge angled outwards below vein 5; cilia brownish at tips. Hind wing pale scarlet, the cilia brownish at tips.

Hab. PERU, Marcapata, type † ♀ in Coll. Joicey. *Exp.* 52 millim.

1273 *a*. Automolis niveomaculata.

Automolis niveomaculata, Roths. Nov. Zool. xvi. p. 42, pl. 6. f. 21 (1909).

Head orange with a black spot on vertex; palpi black, the 1st joint orange in front, the 2nd with some whitish at base; antennæ black; thorax black mixed with grey, the tegulæ with dorsal white stripe and orange at base and sides, the patagia with white stripes; pectus in front and fore coxæ orange; femora and hind tibiæ striped with white; abdomen black with lateral orange patch on three subterminal segments, the ventral surface orange except at extremity. Fore wing black, the veins below costa to end of cell, discal fold in cell, median nervure, basal half of vein 3 and middle of inner margin with slight white streak; a stronger streak on vein 2 and strong streaks in submedian fold and above vein 1; a large round postmedial patch from vein 7 to below vein 4 near termen. Hind wing fuscous black with a large triangular semihyaline white patch below the cell and vein 5 to towards termen.

Hab. PERU, Carabaya, R. Huacamayo, La Union (*Ockenden*), type † ♂ in Coll. Rothschild; Yahuarmayo, 1 ♀. *Exp.* 40 millim.

*1273 *b*. Automolis chionoplaga. (Plate XLVI. fig. 17.)

Automolis chionoplaga, Dogn. Mém. Soc. Ent. Belg. xxii. p. 13 (1913).

♀. Head orange, the lower part of frons and vertex with black spots; antennæ black; palpi fuscous, white in front and yellow at base; thorax greyish fuscous with white streaks on tegulæ, patagia, and dorsum; pectus in front and fore coxæ orange; femora streaked with white; abdomen black with orange band on 5th and 6th segments, the ventral surface orange except at extremity. Fore wing greyish fuscous with white streaks on costa and the veins and in discal fold to end of cell, on vein 3 to beyond middle, on veins 2 and 1 and in submedian fold to termen, and on inner margin except at base; a large rounded conical white patch from beyond upper angle of cell to near termen where it extends to below vein 4. Hind wing fuscous black with a large triangular white patch below and just beyond the lower angle of cell.

Hab. PANAMA, Lino (*Fassl*), type † ♀ in Coll. Dognin. *Exp.* 46 millim.

*1273 *c*. Automolis albcatra.

Automolis albcatra, Roths. Nov. Zool. xvi. p. 46, pl. 6. f. 30 (1909).

♂. Head orange with black spot on vertex; palpi brown, the 1st joint orange in front; frons, antennæ, and a bar between their

bases brown; thorax dark brown with a broad white fascia on outer edge of tegulæ and patagia; fore coxæ orange; femora and hind tibiæ streaked with white; abdomen black tinged with blue and with brown hair at base, the last two segments orange-yellow with a black spot on anal segment, the ventral surface orange. Fore wing black-brown; a large triangular white patch on basal half of costal area extending to submedian fold; a broad white band from costa towards apex to termen between veins 4 and 2. Hind wing semihyaline white; the costa and termen towards apex brown; the inner area brown, extending on termen to vein 2.

Hab. Br. Guiana; Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild; Peru, Carabaya, R. Huacamayo, La Union, R. Inambari, La Oroya. *Exp.* 40 millim.

*1273 *d*. Automolis albi apicalis, n. n. (Plate XLVI. fig. 18.)

Automolis semicostalis apicalis, Roths. Nov. Zool. xvi. p. 46 (1909), nec Wlk. 1854.

♀. Head orange, the palpi blackish, the frons whitish below and with black bands at middle and between antennæ which are black, a blackish patch on vertex; thorax brown, the tegulæ white edged with brown, the patagia with white stripes; fore coxæ orange; abdomen brown, blackish towards extremity, the 3rd to 6th segments with lateral orange spots, the ventral surface orange except at extremity. Fore wing brown; the costal area creamy white to beyond middle; the apical area white, broadly at costa and narrowing to a point at vein 2 with some brown at apex. Hind wing brown, the costal area creamy white to middle, the apex with a small white mark.

Hab. Bolivia, Mapiri (*Stuart*), type † ♀ in Coll. Rothschild. *Exp.* 46 millim.

1273 *e*. Automolis semicostalis. (Plate XLVI. fig. 19.)

Automolis semicostalis, Roths. Nov. Zool. xvi. p. 46, pl. 6. f. 31 (1909).

♀. Head orange; palpi, except at base, lower part of frons and antennæ dark rusty brown, the back of head with black spot; thorax dark rusty brown, the outer half of tegulæ and patagia creamy white, fore coxæ orange, the mid and hind coxæ and streaks on femora creamy white; abdomen black-brown with orange lateral band on segments 2–5 followed by a small spot, the ventral surface orange except at extremity. Fore wing deep rusty brown; the costal area creamy white from base to just beyond middle; a creamy white band from costa towards apex to termen between veins 4 and 2. Hind wing deep rusty brown; the underside with the base of costal area and the cell except at lower extremity creamy white.

Hab. Br. Guiana, Demerara (*Rodway*). 1 ♀; Surinam, Paramaribo; Brazil, Amazons, Fonte Boa. *Exp.* 44 millim.

*1273 *f.* Automol's fuliginosa.

Automolis fuliginosa, Roths. Nov. Zool. xvii. p. 187, pl. 14. f. 10 (1910).

♀. Head, thorax, and abdomen black, the tegulæ at sides with small creamy white spots, the shoulders and metathorax with creamy white patches; abdomen with dorsal creamy white points on basal and 4th and 5th segments, slight lateral metallic blue lines and ventral series of creamy white bands. Fore wing black with the interspaces greyish except on basal and apical areas, the other edge of the black basal area running obliquely from near upper angle of cell to inner margin near base. Hind wing black with the interspaces in, below, and just beyond the cell semihyaline; a creamy white patch at base of inner area.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♀ in Coll. Rothschild. *Exp.* 42 millim.

*1275 *a.* Automolis underwoodi.

Automolis underwoodi, Roths. Nov. Zool. xvi. p. 47, pl. 6. f. 34 (1909).

♂. Head and thorax black-brown, the sides of head, tegulæ, patagia, and sides of thorax with broad yellow stripes conjoined above frons which has a metallic blue spot; pectus with yellow stripe below the wings; fore coxæ with yellow spot; hind tarsi with slight whitish marks at base of joints; abdomen black-brown, lateral yellow spots on two basal segments, the terminal segments with some metallic blue on dorsum, the ventral surface with yellow bands on medial segments, broad in front. Fore wing black-brown; yellow streaks on and below basal half of costa; a broad oblique yellow fascia from inner margin close to base extending into end of cell, then bent outwards and arched above to just before termen between veins 7 and 5, where its extremity is slightly bilobed, vein 1 beyond the fascia slightly streaked with yellow. Hind wing black-brown, the costal area yellow, its lower edge curved, extending to just below the cell and slightly irregular, then narrowing to apex; the underside with the inner margin whitish and with slight fringe of hair in fold of inner margin.

Hab. Costa Rica (*Underwood*), type † ♂ in Coll. Rothschild. *Exp.* 42 millim.

*1275 *b.* Automolis rosenbergi.

Automolis rosenbergi, Roths. Nov. Zool. xvi. p. 47, pl. 6. f. 35 (1909).

♀. Head and thorax dark brown, the sides of head, tegulæ, and patagia with broad yellow stripes; palpi with the basal joint white in front; frons with metallic blue spot; pectus with yellow streaks below the shoulders; fore coxæ with yellow spot in front and metallic blue spot at sides; fore femora, tibiæ, and tarsi and mid femora streaked with yellowish; abdomen black-brown with metallic blue dorsal spots on medial segments, a lateral seri = of blue spots

and yellow lateral bands on 1st three segments, the ventral surface with paired yellow spots on 1st five segments, narrowing into bars behind. Fore wing dark brown with an oblique yellow fascia from just above inner margin near base to vein 5 beyond the cell, then bent outwards below vein 6 to near termen. Hind wing dark brown with a yellow fascia just below costa from near base to near apex, its lower edge curved and extending to just below the cell.

Hab. VENEZUELA, Tachira; W. ECUADOR, Paramba (*Rosenberg*), type † ♀ in Coll. Rothschild, Hacienda Ave Maria. *Exp.* 44 millim.

*1275 *c.* Automolis guapisa.

Automolis guapisa, Schaus, A. M. N. H. (8) vi. p. 200 (1910); Roths. Nov. Zool. xix. pl. 5. f. 22.

♀. Head and thorax brown with paired orange fasciæ on upper part of frons and vertex of head, becoming broader on tegulæ and patagia; palpi with orange points on the joints in front; frons and pectus with patches of metallic blue; orange streaks below the shoulders and on the tibiæ and tarsi; abdomen black-brown with metallic blue subdorsal spots on 6th and 7th segments, lateral orange patches and metallic blue spots on 2nd, 3rd, and 4th segments and orange ventral bands on three basal segments. Fore wing dark brown, the veins, discal and submedian folds streaked with orange; an oblique orange fascia from vein 1 near base to beyond lower angle of cell and an oblique fascia between veins 6 and 5 on terminal area. Hind wing black-brown; the costal area orange, extending to just below the cell and narrowing towards apex, which it does not quite reach; a slight orange streak at base of inner area.

Hab. COSTA RICA, Tuis (*Schaus*), type † ♀ in U.S. Nat. Mus. *Exp.* 46 millim.

*1276 *a.* Automolis saturata.

Automolis packardi, saturata, Roths. Nov. Zool. xvi. p. 47, pl. 6. f. 33 (1909).

♂. Head and thorax dark brown slightly shot with blue; tegulæ and patagia with orange fasciæ; coxæ with metallic blue spots; abdomen black-brown with dorsal metallic blue spots on three subterminal segments, lateral series of small spots and sublateral orange spots on three basal segments with metallic blue spots between them. Fore wing dark brown; an oblique orange fascia from vein 1 near base to vein 5 beyond the cell, then bent outwards below it to near termen; an oblique orange bar across apical area from just below costa to termen between veins 6 and 5; cilia greyish brown except at apex. Hind wing brown; an orange patch filling the cell and narrowing below costa to just before apex; some semihyaline whitish below the cell.

Hab. BR. GUIANA, R. Demerara; BRAZIL, Sta. Catherina, type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

*1279 *a*. Automolis carinosa. (Plate XLVI. fig. 20.)

Automolis carinosa, Schaus, Pr. U.S. Nat. Mus. xxix. p. 215 (1905).

♂. Head and front of thorax white, the latter with some crimson irroration; palpi above, a bar across frons, and antennæ brown; the rest of thorax fulvous yellow with slight fuscous marks on meso- and metathorax on which there is a white patch; pectus white with some crimson below the shoulders; legs white banded with black; abdomen crimson with dorsal series of white points, the anal tuft and ventral surface white. Fore wing pale yellow, some crimson at base of inner margin, followed by an oblique purple-fuscous band from base of costa to middle of inner margin intersected by white streaks on the veins; a similar postmedial band expanding on costa and inner margin and defined on each side by white; the medial area with some white on costa and outer edge of antemedial band. Hind wing semihyaline white, the inner half tinged with crimson, more deeply towards tornus.

Hab. Brazil, Rio Janeiro, type † ♂ in U.S. Nat. Mus. *Exp.* 38 millim.

*1279 *b*. Automolis luridoides.

Automolis luridoides, Roths. Nov. Zool. xvii. p. 19, pl. 13. f. 33 (1909).

♂. Head, thorax, and abdomen pale orange-yellow, the dorsum of thorax grey-blue; palpi and frons brownish; antennæ brown; fore and mid legs brownish; the fore tibiæ with black marks at middle and extremity, the mid tibiæ at base and middle and the hind tibiæ at base and extremity, the tarsi white ringed with black; ventral surface of abdomen pale yellow. Fore wing pale orange-yellow; an oblique conical grey-blue basal patch from costa to vein 1, dilated on costa to base, an elliptical patch from middle of costa to near termen below vein 2, and an oblique hemispherical subapical patch, all with rather darker edges defined by white. Hind wing pale yellow.

Hab. Brazil, Minas Geraes, Preto, type † ♂ in Coll. Rothschild. *Exp.* 36 millim.

1280. Automolis superba, del. *Automolis salma*.

♂. Similar to female, but the abdomen with the blue-black patch restricted to the two terminal segments.

Fr. Guiana, St. Laurent Maroni, in Coll. Joicey.

1280 *a*. Automolis salma, Druce.

The female differs from the male in having a slight black mark at tornus of hind wing.

*1280 *b*. Automolis sulfurea. (Plate XLVI. fig. 21.)

Automolis sulfurea, Schaus, Pr. U.S. Nat. Mus. xxix. p. 216 (1905).

♀. Head and thorax sulphur-yellow; palpi, frons, antennæ, pectus, and legs black-brown shot with blue in places; abdomen orange, the terminal half of dorsum black banded with blue. Fore wing sulphur-yellow with small black apical spot. Hind wing orange-yellow with some black on termen between vein 3 and tornus.

Hab. Fr. Guiana, St. Jean Maroni, type † ♀ in U.S. Nat. Mus. *Exp.* 12 millim.

1281 *a*. Automolis schausi. (Plate LXV. fig. 15.)

Automolis schausi, Roths. Nov. Zool. xxiii. p. 266 (1916).

♀. Head fiery orange with a small black spot on vertex behind; antennæ and palpi except the basal joint in front black; thorax chrome yellow with small black spots on tegulæ and prothorax; abdomen black glossed with blue, a small yellow dorsal spot on 3rd segment, the 4th and 5th segments deep orange: the former black at base, the latter with small dorsal black spot; pectus and legs black glossed with blue, the former in front and fore coxæ orange; ventral surface of abdomen orange with lateral and sublateral series of black spots. Fore wing uniform chrome yellow. Hind wing rather paler yellow.

Hab. Costa Rica, Juan Vinas (*Schaus*), 1 ♀, Sitio (*Schaus*), type † ♀ in Coll. Rothschild. *Exp.* 64 millim.

1281 *b*. Automolis elissoides.

Automolis elissoides, Roths. Nov. Zool. xvi. p. 270 (1909).

Hind wing of male with vein 8 stalked with 6, 7; the tornus lobed.

♂. Head orange, the back of head white; palpi black at tips; antennæ black with the basal joint white; thorax creamy white; pectus orange; legs fuscous with white streaks on femora;

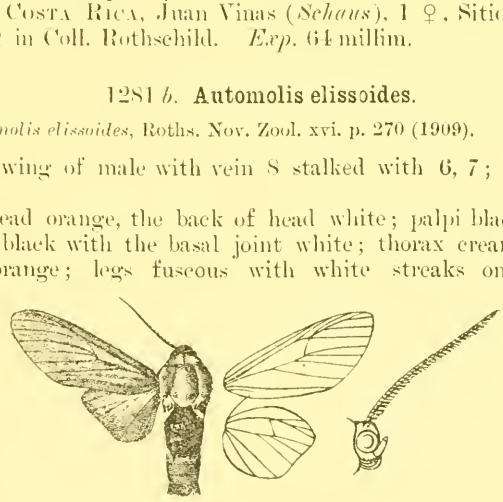

Fig. 68.—*Automolis elissoides*, ♂. ½.

abdomen orange, the basal half of dorsum black followed by a series of small dorsal black spots, lateral series of small black spots. Wings uniform creamy white.

♀. Abdomen with the terminal segments dorsally black, two of the medial segments only orange with black spots, the anal tuft orange.

Hab. TRINIDAD, Port of Spain, Caparo, Belmont; VENEZUELA, Merida (*Bricino*), type † ♂ in Coll. Rothschild, Esteban Valley, Las Quiguas (*Klages*), 1 ♂; BOLIVIA, R. Solocame. *Exp.*, ♂ 46, ♀ 58 millim.

*1281 *c*. Automolis hamifera. (Plate XLVI. fig. 22.)

Automolis hamifera, Dogn. Ann. Soc. Ent. Belg. li. p. 227 (1907).

♂. Head and thorax red-brown; a yellowish band between antennæ which are black-brown; outer edge of tegulæ and patagia with white fascia; fore coxæ yellow; femora streaked with whitish; abdomen yellow with large dorsal red-brown patch extending to beyond middle. Fore wing creamy white with broad brown fascia on inner margin expanding at extremity into a triangular patch from vein 1 to tornus and with oblique brown bar above it from costa to discal fold; an apical brown patch narrowing from costa to a point below vein 3. Hind wing creamy white with broad brown fascia on inner margin.

Hab. FR. GUIANA, St. Laurent Maroni, type † ♂ in Coll. Dognin. *Exp.* 34 millim.

*1281 *d*. Automolis crocopera.

Automolis crocopera, Schaus, Pr. U.S. Nat. Mus. xxix. p. 218 (1905).

Hind wing with the termen excised from apex to vein 1 where it is produced to a point.

♂. Head orange; palpi at base and antennæ black; thorax greenish fuscous; abdomen blue-black with the last two segments

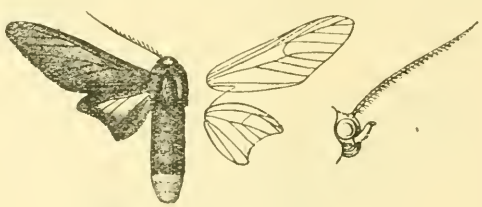

Fig. 69.—*Automolis crocopera*, ♂. ½.

orange. Fore wing uniform dull greenish. Hind wing bluish fuscous, the area below the cell and vein 5, except on terminal area, hyaline with the veins dark.

Hab. BR. GUIANA, Omai, type † ♂ in U.S. Nat. Mus. *Exp.* 48 millim.

1281 *e*. Automolis pseudelissa.

Automolis pseudelissa, Dogn. Ann. Soc. Ent. Belg. xlvi. p. 232 (1902).

Hind wing with vein 8 from angle of cell, the tornus with slight lobe.

♂. Head orange; palpi, antennæ, and a point at back of head black; thorax pale yellow, the pro- and mesothorax with dorsal black streak; pectus and legs black, the fore coxæ orange;

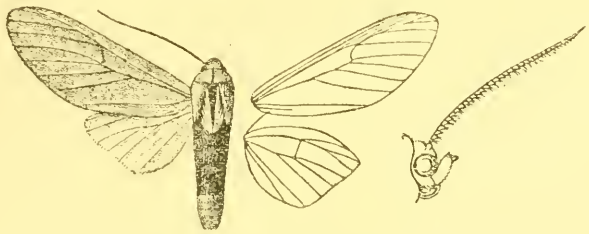

Fig. 70.—*Automolis pseudelissa*, ♂. ½.

abdomen dorsally black shot with blue, the last four segments orange with dorsal and lateral series of black spots, the ventral surface orange with the basal segment black, sublateral paired black points on anal segment; wings pale yellow.

Hab. Venezuela, Merida, 1 ♂, type † ♂ in Coll. Dognin; Peru, S. Domingo, 2 ♂. *Exp.* 54 millim.

*1283 *a*. Automolis tanialoides.

Automolis tanialoides, Roths. Nov. Zool. xvii. p. 504 (1910). & xix. pl. 5. f. 10.

♂. Head and thorax orange; palpi black; lower part of frons black with a metallic blue patch on it; vertex of head with a wedge-shaped black patch with a blue spot on it; antennæ black; tegulæ and thorax with lateral black stripes; pectus and legs black-brown, the legs streaked with orange above, the fore coxæ with orange and blue spots; abdomen black-brown, subdorsal orange patches on 2nd segment and blue spots on terminal segment, lateral orange bars on two basal segments and lateral and sublateral blue spots, a ventral series of orange bands and blue segmental lines except at extremity. Fore wing orange; a black-brown point at base and oblique subbasal bar from costa; a black-brown terminal band expanding at apex and extending on inner margin to near base. Hind wing orange-yellow, the inner area except at base and the terminal area black-brown, the latter narrowing to apex.

Hab. Venezuela, San Esteban (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

1283 *b*. Automolis taniala.

Automolis taniala, Schaus, A. M. N. H. (8) vi. p. 201 (1910); Roths. Nov. Zool. xix. pl. 5. f. 23.

Head and thorax black; palpi and frons with some metallic blue, a pair of small orange spots in front of antennæ and a pair at back of head; tegulæ and patagia orange edged with black; fore coxæ with patches of metallic blue; abdomen black with metallic blue spots on terminal segments and a lateral series, the ventral surface with metallic blue bands and small paired orange spots on 2nd and 3rd segments. Fore wing orange; a black patch at base, the costal edge black; a terminal black band expanding on apical area and extending as a narrow streak along inner margin to base; the male with the inner edge of the black band indented by a slight orange streak below vein 2 and with the cilia greyish. Hind wing black, the costal area orange almost to apex with sinuous lower edge; the underside with the costal edge black and a black streak on subcostal nervure, the inner area of male with the tuft of hair in the fold orange.

Hab. Costa Rica, Sitio (*Schaus*), 3 ♂, Juan Vinas (*Schaus*), 2 ♂, 2 ♀, Tuis (*Schaus*), 1 ♂. *Exp.*, ♂ 40, ♀ 46 millim.

*1284 *a*. Automolis neira. (Plate XLVI. fig. 23.)

Automolis neira, Schaus, Pr. U.S. Nat. Mus. xxix. p. 217 (1905).

♂. Head, thorax, and abdomen black-brown with a purplish tinge, some metallic blue on frons, vertex of head, metathorax, coxæ, terminal segments and sides of abdomen; tegulæ and patagia with orange fasciæ. Fore wing black-brown shot with purple; an oblique orange fascia from vein 1 near base to vein 5 towards termen, attenuate at extremity; an oblique orange fascia from below costa towards apex to termen below vein 6; cilia brown. Hind wing dark brown, the area below the cell semihyaline; the underside with large elliptical orange patch below costa.

Hab. Brazil, Rio Janeiro, type † ♂ in U.S. Nat. Mus. *Exp.* 40 millim.

1286 *a*. Automolis atænia.

Automolis atænia, Schaus, A. M. N. H. (8) vi. p. 199 (1910).
Automolis collateralis, Roths. Nov. Zool. xvi. pl. 6. f. 36 (nec Hmpsn.).

Head orange; palpi except at base, antennæ, and spots on frons and vertex of head black; thorax black, the tegulæ and patagia orange edged with black, the metathorax with metallic blue patch; pectus with orange lateral stripes, the fore coxæ with orange patches, the femora and tibiæ with whitish streaks; abdomen black with dorsal metallic blue spots on terminal segments and lateral and sublateral series, the 2nd and 3rd segments with lateral orange spots, the ventral surface with orange bands except

towards extremity. Fore wing black, the costal edge orange to beyond middle; an oblique orange fascia from inner margin near base to vein 6 beyond middle, then bent outwards to termen; cilia greyish in male. Hind wing black with the costal area broadly orange extending to below the cell; the underside with subcostal black streak ending on costa beyond middle.

Hab. Costa Rica, Tuis (*Schaus*), 1 ♂, Juan Vinas (*Schaus*), 1 ♀. *Exp.*, ♂ 42, ♀ 48 millim.

1287 *a*. Automolis maura. (Plate XLVI. fig. 21.)

Automolis maura, Schaus, A. M. N. H. (8) vi. p. 199 (1910).

♂. Head and thorax black, the frons metallic blue, the vertex of head orange with a black and blue spot; tegulæ and patagia orange edged with black which at dorsum of tegulæ forms a round spot, the metathorax with blue patch; coxæ with blue patches, the fore tarsi with white streak in front of basal joint; abdomen black with dorsal metallic blue spots on terminal segments, a lateral series and ventral bands, the 2nd and 3rd segments with small paired orange ventral spots. Fore wing black with orange streak on costa to middle; an oblique orange fascia from above inner margin near base to below apex, narrowing towards extremity and rounded at extremity; cilia greyish. Hind wing black, the costal area orange not quite extending to base and apex; the underside with the costal edge black and with a black fascia below it to middle.

♀. Vertex of head with the orange spots not conjoined between antennæ; fore wing with the orange fascia broader and slightly bent outwards at extremity, the cilia not greyish.

Hab. Costa Rica, Sitio (*Schaus*), 1 ♂, Juan Vinas (*Schaus*), 3 ♂, 2 ♀. *Exp.*, ♂ 44, ♀ 46 millim.

1288 *a*. Automolis pseudoguapisa.

Automolis pseudoguapisa, Roths. Nov. Zool. xvii. p. 505 (1910), & xix. pl. 5. f. 1 ♂, 11 ♀.

♂. Head and thorax black-brown, the frons with lateral metallic blue spots below and orange spots above, a blue spot between antennæ and orange spots behind them, the tegulæ and patagia with orange stripes; palpi with the basal joint orange in front; fore coxæ with orange spots, the fore tibiæ with orange streak, the tarsi orange; abdomen black-brown, the 2nd segment with subdorsal orange spots, the terminal segments with dorsal and lateral blue spots, the ventral surface with sublateral orange bars on 1st five segments, the 6th with ventral bar and the terminal segments with some blue. Fore wing dark red-brown, the veins with slight yellowish streaks; an oblique orange fascia from below apex, where it is slightly dilated, to vein 1 near base; the cilia, and termen except towards apex, grey-brown. Hind wing yellow with some brown at base and a discoidal spot sometimes

absent, the terminal area brown from apex to inner margin before middle; the underside with the costal area, the base of cell, and a streak in cell to the discoidal bar dark brown.

♀. Abdomen with subdorsal orange spots and sublateral patches on three basal segments; fore wing with the oblique fascia narrow below vein 2, obsolete above it; hind wing with orange streak below the cell extending to beyond it.

Ab. 1. Wings with the markings as in male. Peru.

Hab. Venezuela, San Esteban (*Klages*), type † ♂, ♀ in Coll. Rothschild, Las Quiguas, 2 ♂; Peru, Yahuarmayo, 1 ♀. *Exp.* 36–40 millim.

1289. Automolis vitrea, insert: —

Subsp. *borealis*, Roths. Nov. Zool. xvi. p. 47, pl. 7. f. 3 (1909).

Fore wing with the black markings on basal half much reduced and wider apart than in the typical form, the pale streaks yellower, the subterminal series of black spots generally complete and formed by four or five spots; hind wing in female white tinged with salmon-pink instead of buff; thorax yellower with the bands greyish fuscous; abdomen not tinged with blackish at extremity in male.

Hab. Mexico; Guatemala; Honduras; Panama, type † in Coll. Rothschild.

Subsp. *occidentalis*, Roths. Nov. Zool. xvi. p. 47, pl. 7. f. 4 (1909).

Fore wing with the basal area whiter than in the typical form, the pale streaks of medial area more chestnut; thorax more chestnut-brown; abdomen orange with a slight reddish tinge.

Hab. Peru, Carabaya, R. Huacamayo, La Union (*Ockenden*), type † ♂ in Coll. Rothschild.

Subsp. *meridionalis*, Roths. Nov. Zool. xvi. p. 47, pl. 7. f. 1 (1909).

Similar to the form *occidentalis* but the fore wing with the black streaks slighter.

Hab. Paraguay, Sapucay (*Foster*), type † ♂ in Coll. Rothschild.

1290. Automolis lineosa, insert (syn.): —

Automolis sublineata, Roths. Nov. Zool. xxiv. p. 480 (1917) ♂.
Automolis perlineosa, Roths. Nov. Zool. xxiv. p. 480 (1917) ♀.

Costa Rica, Juan Vinas (*Schaus*), type † ♀ *perlineosa*; Peru, Carabaya, Tinguri, type † ♂ *sublineata*, S. Domingo, in Coll. Rothschild.

A Peruvian form has hardly any yellow tinge on terminal area of fore wing and in the male the streaks in the interspaces above vein 3 extending to nearer the end of cell.

Peru, R. Inambari, La Oroya (*Ockenden*), ♂. Carabaya, S. Domingo (*Ockenden*), ♀ in Coll. Rothschild.

*1290 *a*. **Automolis internervosa.** (Plate XLVI. fig. 25.)

Automolis internervosa, Dogn. Hét. Nouv. Am. Sud, v. p. 10 (1912).

♀. Head, thorax, and abdomen orange-yellow; palpi fuscous except 1st joint; lower part of frons fuscous; antennæ tinged with fuscous; tegulæ, patagia, meso- and metathorax with paired black spots; pectus, legs, ventral surface of abdomen, and anal tuft white, the fore tibiæ and tarsi brownish. Fore wing ochreous yellow; small black spots below base of costa and cell; the interspaces with black streaks, the cell and submedian interspace with two streaks; cilia brownish. Hind wing ochreous white.

Hab. Colombia, Medina (*Fassl*), type † ♀ in Coll. Dognin. *Exp.* 38 millim.

1291. **Automolis tybris.** insert (syn.):—

Automolis troias, Druce, A. M. N. H. (7) xi. p. 197 (1903).

Brazil, Rio Grande do Sul, type † ♀ in Coll. Joicey.

*1291 *a*. **Automolis intermedia.**

Automolis intermedia, Roths. Nov. Zool. xvi. p. 48. pl. 6. f. 37 (1909).

♂. Head and thorax white with slight brownish marks on shoulders and metathorax and some yellow on prothorax and outer edge of patagia; palpi black, brownish and white in front; antennæ with the branches brownish; abdomen brownish ochreous, the basal segments with some white on dorsum and fulvous yellow at sides, the ventral surface white. Fore wing white; a black-brown point below base of cell, two subbasal points in submedian interspace and a slight streak below vein 1; the medial area with black-brown streaks on the veins and in the interspaces from vein 4 just beyond the cell to vein 1; a small blackish discoidal lunule filled in with white; the postmedial area with large hyaline patch from below costa to vein 3 where it narrows, defined on outer side by a subterminal series of slight dark lunules; the inner area with two slight blackish streaks in submedian interspace; a black spot just before termen in discal fold and a black-brown bar from below vein 4 to termen above tornus; the veins of terminal area with slight black streaks ending in points on termen. Hind wing semihyaline white, the inner area tinged with yellow.

Hab. Peru, Carabaya, R. Huacamayo, La Union (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 42 millim.

*1291 *b*. **Automolis felderi.**

Automolis felderi, Roths. A. M. N. H. (8) iv. p. 225 (1909): id. Nov. Zool. xviii. pl. 5. f. 19.

♀. Head and thorax white, the latter with pale rufous stripes at sides and spots on pro- and metathorax; palpi with black streaks

on 2nd joint in front and behind; antennæ with the branches brownish; abdomen pale fulvous yellow with small dorsal white spots on basal half and the ventral surface white. Fore wing pale fulvous, the costal edge white; slight fuscous streaks below the cell and vein 2 and veins 4, 3 to beyond middle; a large post-medial hyaline patch edged with brown from below costa to vein 4, where it is connected with a lunulate spot between veins 4, 3, a white mark beyond it on costa. Hind wing ochreous white with a small brownish discoidal spot; the underside white.

Hab. COLOMBIA, type † ♀ in Coll. Rothschild. *Exp.* 50 millim.

*1294 *a*. **Automolis bonora**. (Plate XLVI. fig. 26.)

Automolis bonora, Schaus, Pr. U.S. Nat. Mus. xxix. p. 219 (1905).

♂. Orange; palpi brown, whitish in front; lower part of frons black with metallic blue spots; antennæ black, whitish at base; legs whitish streaked with black, mid and hind coxæ with lateral blue patches; abdomen with the terminal half black with blue band, the ventral surface whitish with segmental black lines, the extremity black. Fore wing with the apical part of costa and termen brown. Hind wing with small brown spots at extremity of vein 2 and tornus.

Hab. FR. GUIANA, type † ♂ in U.S. Nat. Mus. *Exp.* 38 millim.

*1294 *b*. **Automolis ochreomarginata**.

Automolis ochreomarginata, Joicey, P. Z. S. 1917, p. 267, pl. 1. f. 9 (1918).

♂. Head and thorax deep orange with a black and metallic blue spot between antennæ, which are black-brown; lower part of frons metallic blue; palpi black-brown, white in front except at base of 2nd joint; abdomen with the two basal segments deep orange, the terminal segments black-brown with dorsal metallic blue spots on three penultimate segments, lateral series of spots from 2nd segment and a line at base of anal tuft; legs creamy white striped with black-brown; ventral surface of abdomen creamy white with narrow segmental black-brown bands and slight ventral streak at base, a sublateral series of metallic blue points, the anal segment black-brown with a metallic blue patch, the anal tuft whitish at extremity. Fore wing deep orange; the cilia dark brown at apex, then buff. Hind wing pale orange-yellow. Underside orange-yellow, the costa of fore wing black-brown except towards base.

Hab. FR. GUIANA, St. Jean Maroni (*Le Moult*), type † ♂ in Coll. Joicey. *Exp.* 38 millim.

1296. **Automolis bucleyi**, insert:

Subsp. *harterti*, Roths. Nov. Zool. xvi. p. 44, pl. 6. f. 15 (1909).

♂. Fore wing with the inner half more yellow, the costal half much brighter scarlet; hind wing yellow.

Hab. BRAZIL, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild.

Subsp. *whitfordi*. Roths. Nov. Zool. xvi. p. 41 (1909).

♂. Similar to the typical form but the fore wing with the inner half entirely suffused with vermilion, the black lines defining the yellow patches on costal area much stronger.

Hab. Br. Guiana, type † ♂ in Coll. Rothschild.

1297. **Automolis garleppi**, insert:

Subsp. *maroneusis*, Roths. Nov. Zool. xxiv. p. 181 (1917).

♂. Similar to the typical form but fore wing with the leaden grey patches of terminal area much smaller.

Fr. Guiana, St. Jean Maroni, type † ♂ in Coll. Rothschild.

Subsp. *inversa*, Roths. Nov. Zool. xvi. p. 44, pl. 6, f. 17 (1909).

♂. Fore wing with the yellow patches on costal area much larger, the grey patch above tornus reduced to an elliptical spot in submedian fold.

Hab. Peru, Carabaya, S. Domingo (*Ockenden*), type † ♂ in Coll. Rothschild.

Subsp. *pallidipennis*, Roths. Nov. Zool. xvii. p. 25 (1910).

♂. Similar to the typical form but the hind wing tinged with scarlet on inner area only.

Hab. Brazil, Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild.

*1298*a*. **Automolis polystria**. (Plate XLVII. fig. 1.)

Automolis polystria, Schaus, Pr. U.S. Nat. Mus. xxix. p. 219 (1905).

♀. Head and thorax brownish orange; palpi orange at base, the 2nd and 3rd joints grey in front, black behind; pectus orange; legs greyish streaked with fuscous; abdomen orange. Fore wing orange tinged with purple-brown; a fine black streak above middle of inner margin; a series of four fine black streaks between medial part of costa and median nervure; the discocellulars defined by black bars before and beyond them; an oblique series of black streaks from below costa towards apex to above vein 3, the streak above 5 extending to termen, where there is a short streak below vein 5; a more prominent streak above vein 2 from cell to termen and shorter streak below extremity of vein 2 and submedian fold. Hind wing orange.

Hab. Fr. Guiana, St. Jean Maroni, type † ♀ in U.S. Nat. Mus. *Exp.* 38 millim.

*1298*b*. **Automolis vampa**. (Plate XLVII. fig. 2.)

Automolis vampa, Schaus, A. M. N. H. (8) vi. p. 402 (1910).

♀. Head, thorax, and abdomen orange tinged with scarlet; palpi with the second and third joints grey, the second joint with orange spot at base and some black above, the antennæ blackish except towards base; metathorax with pair of black points; legs striped with grey and fuscous. Fore wing orange; a subbasal

black point below the cell: the costal area to middle, the end of cell, the inner medial area, and the interspaces of terminal area suffused with purplish and streaked with black, the purple suffusion slight on terminal area except between veins 3 and 2, where the black streak extends to below end of cell. Hind wing orange. Underside of fore wing with purple-black suffusion on basal half of costa, two diffused streaks in end of cell and three beyond lower angle.

Hab. Costa Rica, Sixola R. (*Schaus*), type† ♀ in U.S. Nat. Mus. *Exp.* 38 millim.

*1298 *c.* Automolis ilioides. (Plate XLVII. fig. 3.)

Automolis ilioides, Schaus, Pr. U.S. Nat. Mus. xxix. p. 219 (1905).

♂. Head and thorax red-brown; palpi flesh-colour at front of basal half and at extremity of 2nd joint; vertex of head with large flesh-coloured patch; tegulæ, upper edge of patagia, and dorsum of thorax with large flesh-coloured patches; pectus and legs ochreous, the latter banded with red-brown; abdomen orange dorsally suffused with scarlet and with white point at base. Fore wing red-brown, some scarlet at base of inner margin, the rest of the markings flesh-colour irrorated with scarlet, and some white points below costa and in cell; an antemedial patch from costa to submedian fold with small brown annulus below costa; a bar from middle of costa to median nervure and semicircular patch below the cell with spot in its loop, followed by a lunulate patch beyond lower angle of cell with small spot below it; a postmedial spot on costa: a band from costa towards apex to vein 2, towards which it narrows, its outer edge angled outwards at vein 5, a minute brown annulus on it below costa with two conjoined annuli below it with another annulus beyond it and sometimes a minute annulus before it; an oblique patch from costa before apex to vein 6 with three spots beyond it. Hind wing semihyaline white, the inner area suffused with scarlet.

Hab. Br. Guiana, Omai, type† ♂ in U.S. Nat. Mus. *Exp.* 42 millim.

1299 *a.* Automolis pauperis. (Plate XLVII. fig. 4.)

Idalus pauperis, Schaus, A. M. N. H. (8) vi. p. 196 (1910).

♂. Head and thorax orange; palpi black: lower part of frons black suffused with blue; antennæ black, white at tips; legs black-brown, bluish grey below, the fore coxæ with blue patches; abdomen orange, the terminal segments black suffused with brilliant blue, lateral black fasciæ except at base. Fore wing uniform orange. Hind wing semihyaline orange-yellow; the underside with the costal area orange.

Hab. Costa Rica, Juan Vinas (*Schaus*), 1 ♂. *Exp.* 38 millim.

1301 *a*. **Automolis catherinæ.** (Plate LXVI. fig. 1.)

Automolis catharinæ, Roths. Nov. Zool. xxiii. p. 267 (1916).

♂. Head and tegulæ creamy white, the latter with black-brown dorsal patch; thorax and abdomen very dark brown, the patagia, except at extremity, pale yellow with a flesh-pink patch, the abdomen with a leaden blue gloss towards extremity; antennæ black; frons and palpi dark brown; pectus, legs, and ventral surface of abdomen dark brown, the fore coxæ yellow with some scarlet at base, the femora yellow at base, the tarsi ringed with white, the abdomen with yellowish white patch on basal segments. Fore wing with the base very dark brown, the costal area beyond it creamy white, the dark area below it defined by a narrow yellow band; the rest of wing brown suffused with grey with a yellow-brown streak along median nervure to end of cell and thence obliquely to termen at vein 6. Hind wing with the basal area pale yellow produced to lower angle of cell and as a streak on vein 1, the rest of wing brown tinged with grey. Underside yellowish brown with a broad pale yellow subbasal band, the costal area of fore wing creamy white.

Hab. S. Brazil, Sta. Catherina, type† ♂ in Coll. Rothschild, Rio Janeiro, Tijuca (*Wagner*). 1 ♂. *Exp.* 48 millim.

1303. **Automolis rutila.** del. *Ischnognatha godmani.*

1303 *a*. **Automolis godmani.** Druce,

is a distinct species.

*1303 *b*. **Automolis cingulata.**

Automolis cingulata, Roths. Nov. Zool. xvi. p. 43. pl. 6. f. 24 (1909).

♀. Head orange; palpi black, orange in front; antennæ black; tegulæ orange with black spots at sides and whitish patches edged with black at tips; thorax greyish fuscous, the patagia with whitish streaks, orange at base and whitish edges, the dorsum of thorax with whitish streak; fore coxæ orange; legs with whitish streaks; abdomen black with orange band on 4th, 5th, and 6th segments expanding laterally towards base, the ventral surface orange except the terminal segments. Fore wing fuscous brown, the veins, discal fold in cell, submedian fold, costa and inner margin with white streaks; a broad yellow band from costa, beyond middle to termen between vein 4 and submedian fold, towards which it contracts somewhat. Hind wing uniform fuscous brown.

Hab. W. Ecuador, Quevedo (*Buckwald*), type† ♀ in Coll. Rothschild. *Exp.* 42 millim.

1303 *c*. **Automolis priscilla.** (Plate XLVII. fig. 5.)

Automolis priscilla, Schaus, A. M. N. H. (8) vii. p. 183 (1911).

♂. Head orange: palpi with the 2nd and 3rd joints whitish with brown streak at sides; frons with small black lunule at middle; vertex of head with two brown points; antennæ blackish;

thorax brown, the tegulæ with dorsal and lateral orange stripes, the patagia with orange stripes, the upper edge of patagia and dorsum of thorax with white streaks; fore coxæ orange; legs striped brown and whitish; abdomen orange with large black-brown patch on basal half of dorsum, the extremity black and whitish. Fore wing brown, the veins, discal and submedian folds streaked with whitish; a large conical yellow patch from costa above end of cell to vein 3. Hind wing yellow, the termen with brown band from above vein 3 to tornus, its inner edge incurved below vein 3.

Hab. Costa Rica, Juan Vinas (*Schaus*), 1 ♂, Sitio, type † ♂ in U.S. Nat. Mus. *Exp.* 40 millim.

*1303 *d*. Automolis persimilis.

Automolis persimilis, Roths. Nov. Zool. xvi. p. 44, pl. 6. f. 25 (1909).

♂. Head yellow with black bar above frons and paired points between antennæ and on vertex; palpi white above, brown below; antennæ black, the shaft whitish above towards base; tegulæ yellow with subdorsal brown fasciæ with white stripes at middle; patagia yellow edged by brown and white stripes; dorsum of thorax brown with white dorsal streak; pectus yellow, the legs striped brown and white; abdomen yellow with large dorsal black patch on basal half, the extremity white with subdorsal black bars. Fore wing brown, the veins and inner margin streaked with yellowish white; a large elliptical pale yellow postmedial patch from costa to vein 3. Hind wing yellow. Underside of fore wing with yellow patch on basal half of inner area.

Hab. Peru, La Oroya, Tinguri, Carabaya, La Union, type † ♂ in Coll. Rothschild. *Exp.* 38 millim.

Subsp. 1. *marginata*, Roths. Nov. Zool. xvi. p. 45, pl. 6. ff. 22, 23 (1909).

Hind wing of male with brown terminal band except towards apex with waved inner edge, of female with the band extending to apex and even throughout.

Hab. Costa Rica, Juan Vinas (*Schaus*), type † ♂ in Coll. Rothschild.

Subsp. 2. Hind wing of female brown with the costal area yellow.

Hab. Brazil, Amazons, Fonte Boa, Codajas, in Coll. Rothschild.

*1303 *e*. Automolis uniformis.

Automolis uniformis, Roths. Nov. Zool. xvi. p. 42, pl. 6, f. 26 (1909).

♂. Head orange; palpi brown with some white at base in front; antennæ brown; thorax grey-brown; fore coxæ orange; abdomen black-brown, the medial segments orange at sides, the ventral surface orange except at extremity. Fore wing brown, the veins, discal fold in cell, submedian fold, costa, and inner margin with grey streaks. Hind wing blackish with a whitish patch on disk below and beyond the cell.

Hab. Surinam, Maroewyn Valley, Aroewarwar Creek (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 34 millim.

*1303 *f.* Automolis clagesi.

Automolis klagesi, Roths. Nov. Zool. xvi. p. 42, pl. 5, f. 43 (1909).

♂. Head and thorax black-brown; palpi pale in front; frons white at sides and below; some yellow scales between antennæ and spots behind them; tegulæ, patagia, and vertex of thorax with slight whitish streaks; pectus and legs grey-brown, the latter with whitish streaks; abdomen black, broad yellow lateral fasciæ except on basal and anal segments and a ventral yellow fascia except on anal segment. Fore wing black-brown with slight pale streaks on the veins and in discal and submedian folds; an oblique yellow band from costa beyond middle to tornen below submedian fold towards which it narrows. Hind wing black-brown with white patch below the cell from near base to beyond middle.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 38 millim.

*1304 *a.* Automolis griseonitens.

Automolis griseonitens, Roths. Nov. Zool. xvi. p. 45, pl. 6, f. 27 (1909).

♂. Head and thorax black with a bluish gloss, frons and a streak on dorsum of thorax metallic blue; tegulæ and a band across base of patagia orange; pectus and legs with some metallic blue; abdomen black shot with metallic blue, an orange band at base of dorsum. Fore wing black suffused with blue-grey; an orange antemedial band narrowing somewhat to costa; a broad orange fascia from costa beyond middle to tornen from below vein 6 to below 5. Hind wing with the basal half yellow, the terminal half fuscous black.

Hab. Peru, R. Inambari, La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild, Carabaya, S. Domingo. *Exp.* 44 millim.

1304 *b.* Automolis ardesiaca.

Automolis ardesiaca, Roths. Nov. Zool. xvi. p. 46, pl. 6, f. 28 (1909).

♂. Head, thorax, and abdomen fuscous brown with a bluish gloss; frons metallic blue; tegulæ and shoulders yellow; abdomen with the basal segment yellow, the ventral surface with some diffused yellow except towards extremity. Fore wing brown suffused with grey; a broad yellow antemedial band; a rather broad oblique band from costa beyond middle to tornen between veins 6 and 5, leaving a small brown patch at apex. Hind wing with the base yellow to middle of costa and inner margin near tornus, the terminal half brown.

Hab. Costa Rica, Tuis, type † ♂ in Coll. Rothschild, Juan Vinas (*Schaus*), 1 ♂; Colombia, Bogotá (*Stevens*), 1 ♂; Venezuela, Esteban Valley, Las Quiguas, 1 ♂. *Exp.* 42 millim.

*1304 *c.* Automolis schistacea.

Automolis schistaceus, Roths. Nov. Zool. xvii. p. 504 (1910), & xix. pl. 5. f. 4.

♂. Head and thorax fuscous black suffused with silvery blue; tegulæ except at base and shoulders yellow; mid and hind tarsi white except at extremities; abdomen black-brown suffused with blue and with a broad yellow band at base, the ventral surface yellow except at extremity. Fore wing brown suffused with blue-grey; a rather inwardly oblique antemedial yellow band expanding somewhat to inner margin. Hind wing with the basal half yellow, the terminal half brown suffused with blue-grey.

Hab. Venezuela, San Esteban (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 44 millim.

*1304 *d.* Automolis dolens. (Plate XLVII. fig. 6.)

Automolis dolens, Druce, A. M. N. H. (7) xiii. p. 241 (1904).

♀. Head and thorax black-brown; frons with blue patch; tegulæ and patagia pale yellow, the latter dark brown above; abdomen brown shot with green, the base yellow, the ventral surface yellow to subterminal segment. Fore wing dark brown; a broad, rather oblique, pale yellow antemedial band with somewhat irregular inner edge; an oblique fascia from costa beyond middle to termen below apex, its lower edge confluent with a terminal band extending to submedian fold and dentate inwards on vein 2. Hind wing dark brown, the basal area pale yellow, its outer edge somewhat angled outwards at veins 4 and 1.

♂. Fore wing with the terminal yellow band more angled inwards on vein 2; hind wing with the terminal area narrower.

Hab. Brazil, Castro Paraña (*D. Jones*); Paraguay, type † in Coll. Joicey. *Exp.* 44 millim.

*1304 *e.* Automolis zonana. (Plate XLVII. fig. 7.)

Automolis zonana, Schaus, Pr. U.S. Nat. Mus. xxix. p. 217 (1905).

♂. Head, thorax, and abdomen black shot with blue; frons metallic blue; tegulæ at tips and shoulders yellow; abdomen with orange band at base and ventral stripe on 2nd to 5th segments, dilated at extremity of segments and on proximal part of 2nd segment extending to lateral suture. Fore wing black; an antemedial pale yellow band slightly angled inwards to costa and expanding towards inner margin; a band from costa beyond middle to below vein 6, then bent outwards as a fascia to termen towards which it is dilated; a fascia on vein 2 from beyond middle to termen where it is dilated. Hind wing with the basal half yellow, orange at inner margin and with some black hair at base, the terminal half black; the underside with black patch at base of costa.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 44 millim.

1304 *f.* Automolis moma. (Plate XLVII. fig. 8.)

Automolis moma, Schaus. Pr. U.S. Nat. Mus. xxix. p. 218 (1905).
Automolis moma tennifascia, Roths. Nov. Zool. xxiv. p. 481 (1917).

Head, thorax, and abdomen black shot with blue; coxæ with some metallic blue; tegulæ and shoulders chrome-yellow; abdomen with broad deep orange band before extremity extending on ventral surface to near base and with two lateral black spots on it. Fore wing black with metallic blue spot below base of cell; a broad rather oblique chrome-yellow antemedial band and a rather narrower band from costa beyond middle to termen at veins 3, 4. Hind wing pale yellow with broad terminal black band, the base and inner margin tinged with black.

Ab. 1. *tennifascia*. Fore wing with the yellow bands much narrower.

Hab. Venezuela, Esteban Valley, Las Quiguas, 1 ♀; Br. Guiana, Omai, type † ♂ in U.S. Nat. Mus.; Brazil, Sta. Catherina, type † ♀ *tennifascia* in Coll. Rothschild. *Exp.* 12 millim.

*1305 *a*. Automolis apicata. (Plate XLVII. fig. 9.)

Automolis apicata, Schaus. Pr. U.S. Nat. Mus. xxix. p. 218 (1905).

♂. Head and thorax brown, vertex of head orange with brown spot; outer half of tegulæ and patagia pale yellow; base of palpi and fore coxæ orange; hind femora streaked with pale yellow; abdomen orange with large dorsal brown patch extending to 5th segment. Fore wing pale yellow with brown fascia on inner margin slightly expanding at middle and with short brown streak above it; an apical brown patch extending to vein 4. Hind wing pale yellow, the inner area rather deeper and with some brown hair.

Hab. Fr. Guiana, St. Laurent Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 31 millim.

*1305 *b*. Automolis inexpectata.

Halisidota inexpectata, Roths. Nov. Zool. xvii. p. 70, pl. 13. f. 25 (1910).

♂. Head and thorax fulvous orange with a pair of whitish streaks on dorsum of thorax; palpi, antennæ, and legs dark brown; abdomen dark brown, the extremity fulvous, the ventral surface paler brown. Fore wing whitish, the veins brown, the basal area and costal area to end of cell tinged with brown; a white spot at base of cell; an oblique brown discoidal bar; an oblique brown subterminal band, its outer edge somewhat dentate at the veins, slightly excurved below vein 5 and ending at vein 3; cilia brown. Hind wing semihyaline whitish, the veins brown, the inner area suffused with brown; a diffused brown discoidal patch; cilia brown; the underside with the costal half suffused with brown to just beyond the cell.

Hab. Venezuela, Caracas; Peru, Carabaya, Tinguri, type † ♂ in Coll. Rothschild, La Union, Rio Huacamayo. *Exp.* 52 millim.

*1305 *c*. **Automolis soror.** (Plate LXV. fig. 9.)

Automolis soror, Roths. Nov. Zool. xxiv. p. 481 (1917).

♀. Head, thorax, and abdomen fulvous yellow, the last brownish at sides towards base; antennæ grey-brown; palpi brown, fulvous yellow in front; pectus and legs brown, the coxæ fulvous yellow. Fore wing pale grey-brown; some white at base; an oblique maculate semihyaline white postmedial band interrupted by grey-brown streaks on the veins, broad to vein 3, then narrow and fainter, expanding at costa and somewhat incurved between veins 6 and 4. Hind wing pale grey-brown, the costal area to beyond middle and the cell white; a curved maculate semihyaline white postmedial band from costa to vein 2, interrupted by grey-brown streaks on the veins.

Hab. Brazil. Amazons, type † ♀ in Coll. Rothschild. *Exp.* 70 millim.

*1305 *d*. **Automolis dissimilis.** (Plate XLVII. fig. 10.)

Lophocampa dissimilis, Druce, A. M. N. H. (8) vi. p. 169 (1910).

♀. Head orange; palpi brown; antennæ black, white towards base; thorax white, the tegulæ tipped with orange, the patagia and dorsum of thorax with orange streaks; pectus and legs brown, the coxæ with orange hair; abdomen black-brown, the basal segments with diffused orange-yellow dorsal bands, the medial segments with orange-yellow subdorsal and lateral spots, the terminal segments ochreous, the ventral surface ochreous, the segments slightly edged with brown. Fore wing creamy white, the veins, discal fold in cell, and submedian fold pale fulvous brown; an oblique pale fulvous brown discoidal bar; an oblique pale brown subterminal shade from costa to vein 3. Hind wing creamy white, the inner area suffused with brown, the veins and a discoidal bar pale brown; the underside with a pale brown streak in the cell.

Hab. Peru, Chancamayo, type † ♀ in Coll. Joicey. *Exp.* 64 millim.

*1306 *a*. **Automolis leucoplaga.** (Plate XLVII. fig. 11.)

Automolis leucoplaga, Dogn. Hét. Nouv. Am. Sud, i. p. 8 (1910).

♂. Head orange with a small black spot on vertex; palpi, except basal joint, and lower part of frons greyish fuscous; antennæ black; thorax greyish fuscous with white streaks at middle and sides of tegulæ and at middle of patagia; fore coxæ orange, the mid femora streaked with white; abdomen black with orange lateral patches towards extremity and the ventral surface orange. Fore wing greyish fuscous, the veins with slightly paler streaks; a white fascia in submedian fold from near base to beyond middle and a streak on vein 1 from near base to just before termen; an elliptical white postmedial patch leaving the costal edge dark and

extending to below vein 3 just before termen. Hind wing fuscous black with a semihyaline white patch below the cell and vein 5 from near base to well beyond middle. Underside of fore wing with white fascia below the cell and vein 2 from near base to beyond middle.

Hab. Fr. Guiana, St. Jean Maroni, in Coll. Dognin. *Exp.* 40 millim.

1306 *b*. Automolis albiplaga.

Automolis albiplaga, Schaus, Pr. U.S. Nat. Mus. xxix. p. 218 (1905); Roths. Nov. Zool. xvi. pl. 6. f. 20.

♂. Head, neck, and fore coxæ orange; palpi, antennæ, a spot on vertex of head, and thorax grey-brown; abdomen blue-black with some orange marks at sides except at base and extremity, the ventral surface yellowish except at extremity. Fore wing olive-brown, the veins and submedian fold with greyish streaks; a large round white patch beyond the cell. Hind wing fuscous shot with blue, a semihyaline patch below the cell.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in U.S. Nat. Mus.; Brazil, São Paulo, 1 ♂. *Exp.* 34 millim.

1307. Automolis annulata, insert :—

Noctua ilus, Cram. Pap. Exot. i. pl. 92 f. E. (1776),

which has precedence.

*1308 *a*. Castrica sordidior.

Castrica sordidior, Roths. Nov. Zool. xvi. p. 18, pl. 7. f. 5 (1909).

♂. Head grey; thorax pale yellow tinged with grey-brown, the tegulæ white except at tips; palpi white, fuscous behind; pectus and legs white, fore coxæ fulvous yellow, the fore and mid femora and tibiæ in front and the hind tibiæ at base brown; abdomen brown with small white spot at base of dorsum, the ventral surface white. Fore wing smoky grey-brown; a minute antemedial white spot above vein 1; a very irregular hyaline patch in, below, and beyond lower angle of cell, subterminal hyaline yellow spots above vein 6 and on veins 4, 3, 2 conjoined to terminal spots, a small terminal spot below apex. Hind wing smoky grey-brown; the underside white, the upper extremity of cell and the inner area tinged with brown.

Hab. Trinidad, Caparo (*Klages*), type † ♂ in Coll. Rothschild; Brazil, Up. Amazons, Fonte Boa. *Exp.* 50 millim.

*1311 *a*. Hypidalia sanguirena. (Plate XLVII. fig. 12.)

Hypidalia sanguirena, Schaus, Pr. U.S. Nat. Mus. xxix. p. 220 (1905).

♂. Head, thorax, and abdomen yellow tinged with crimson; 3rd joint of palpi, spots on tegulæ and at base of fore tibiæ, and the

tarsi black; patagia edged with deep crimson; abdomen with dorsal and sublateral series of small black spots. Fore wing orange-yellow; the veins and submedian fold streaked with crimson; a short crimson streak at base of inner margin; antemedial line crimson, excurved below costa, very oblique to vein 1, then bent outwards to inner margin, an oblique streak from just beyond it in the cell to lower angle of cell; postmedial line double, crimson filled in with grey, bent inwards to costa, then oblique, slightly sinuous and expanding at inner margin, a short oblique streak from it above vein 2; some crimson on costa towards apex; a waved crimson subterminal line from costa to above vein 2, where it is bent inwards as a short streak; the veins of terminal area defined by blackish. Hind wing crimson.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 48 millim.

*1315 *a*. Melese costimacula.

Melese costimacula, Joicey, A. M. N. H. (8) xviii. p. 57, pl. 14. f. 8 (1916).

♀. Head with the frons crimson with grey band above, the vertex of head orange; antennæ brown with the basal joint crimson; palpi crimson; tegulæ and patagia red-brown tinged with grey and with orange patches edged with crimson at middle of tegulæ and base of patagia; thorax orange; pectus and legs crimson, the fore tibiæ at base and the mid and hind tibiæ grey-brown, the tarsi white; abdomen crimson with some greyish at base of sides. Fore wing red-brown suffused with purple-grey; a crimson streak below costa, defining the edges of an oblique conical orange-yellow postmedial patch from costa to vein 5; crimson basal and subbasal points in the cell and a slight crimson and yellow mark above base of inner margin; slight antemedial crimson points on the veins, oblique to median nervure; a yellow spot with crimson annulus in upper part of cell towards extremity; a few crimson scales at middle of submedian fold and a slight yellow and crimson bar from vein 1 to inner margin; an orange-yellow terminal band from costa to vein 3 defined on inner side by a waved crimson line. Hind wing semihyaline white tinged with crimson. Underside of fore wing crimson with the yellow on costa and termen as above, the apical area irrorated with whitish; hind wing with the costal area tinged with yellowish.

Hab. Colombia, Choko, La Selva San Juan, type † ♀ in Coll. Joicey. *Exp.* 46 millim.

1316 *a*. Melese monima. (Plate XLVII. fig. 13 ♂, 14 ♀.)

Melese monima, Schaus, A. M. N. H. (8) vi. p. 202 (1910).

♂. Head and thorax orange-yellow mixed with red-brown and scarlet; palpi crimson; frons with fuscous bar; antennæ black; tegulæ at base and outer edge of patagia fuscous; legs crimson

with some fuscous mixed, the tarsi and hind tibiæ brown and whitish; abdomen crimson, the extremity yellow. Fore wing crimson suffused and irrorated with fuscous, a subbasal yellowish spot below the cell and an antemedial patch constricted at middle and defined by crimson; a crimson discoidal point and oblique series of small yellow spots defined by crimson from lower angle of cell to inner margin; a small white postmedial spot in discal fold. Hind wing white faintly tinged with crimson; the underside with the costal area yellowish tinged with crimson.

♀. Fore wing with pale yellow postmedial spot above vein 6 conjoined to an elongate elliptical white spot below vein 6, cilia crimson and yellow on apical half. Hind wing pale crimson.

Hab. Costa Rica, Juan Vinas (*Schaus*), 2 ♂, 2 ♀; Peru, S. Domingo (*Ockenden*), 1 ♂. *Exp.*, ♂ 42, ♀ 50 millim.

*1316 *b*. Melese signata.

Melese signata, Joicey, A. M. N. H. (8) xviii. p. 58, pl. 14. f. 9♂, 10♀ (1916).

♀. Head scarlet, the frons and antennæ except basal joint grey-brown; thorax grey-brown with the edges of tegulæ and patches at base of patagia and on metathorax scarlet; pectus and abdomen crimson; legs grey-brown, the femora at base and above crimson, the fore tibiæ with crimson streak, the tarsi white except at extremities. Fore wing red-brown tinged with grey; a crimson streak on costa, becoming subcostal towards base; a crimson point near base of median nervure, traces of a waved crimson antemedial line with slight crimson marks beyond it in submedian fold and on vein 1; a faint crimson tinge in the cell and some crimson scales on disco-cellulars; medial crimson spots above and below vein 1; an oblique lunulate pale yellow postmedial mark from costa to vein 5 edged with crimson and black and tinged with scarlet at costa; the cilia crimson at base and orange at tips from apex to vein 3. Hind wing pale crimson, the interspaces of discal area semihyaline whitish. Underside of fore wing crimson, the costa grey-brown except at base, the area beyond the cell to vein 5 and at termen to vein 3 suffused with grey-brown, the lunulate patch white edged with crimson.

♂. Fore wing with the crimson patches on basal half more developed, the lunulate postmedial mark reduced to a small spot above vein 6.

Hab. Peru, R. Tabaconas (*Pratt*), type † ♂, ♀ in Coll. Joicey. *Exp.*, ♂ 44, ♀ 50 millim.

1317. **Melese incerta**, insert (syn.):—

Melese surdus, Roths. Nov. Zool. xvi. p. 273 (1909).

Br. Guiana, Tumatumari (*Klages*), type † ♂ in Coll. Rothschild.

1317 *a*. Melese flavipuncta.

Melese flavipuncta, Roths. Nov. Zool. xvi. p. 49, pl. 7. ff. 13, 14 (1909).

Head and thorax pale greyish brown: palpi crimson, white in front at base and brown at tips; antennæ white at tips; pectus and legs white, the fore coxæ and femora crimson, the fore and mid tibiæ brown; abdomen crimson, the ventral surface white. Fore wing pale red-brown: a subbasal black point below the cell; a small antemedial yellowish spot edged with some crimson on vein 1; a faint fuscous shade across end of cell and bar beyond the cell; the costal edge towards apex and cilia to vein 2 crimson. Hind wing bright rosy crimson: the underside white tinged with crimson.

Hab. Trinidad, Caparo (*Klages*), type † ♂ in Coll. Rothschild; Surinam, Paramaribo, Maroewyn Valley, Aroewarwar Creek; Brazil, 1 ♀, Up. Amazons, Fonte Boa, Sta. Catherina; Ecuador, R. Cachabi, S. Javier, Quevedo; Peru, Carabaya, R. Huacamayo, La Union; Bolivia, Buenavista. *Exp.*, ♂ 30, ♀ 38 millim.

1319. Melese chozeba, insert :—

Melese chozeba intensa, Roths. Nov. Zool. xvii. p. 39. pl. 13. ff. 39, 40 (1910),

for subsp. 1.

*1319 *a*. Melese underwoodi. (Plate LXV. fig. 10.)

Elysius underwoodi, Roths. Nov. Zool. xxiv. p. 481 (1917).

♀. Head, thorax, and abdomen brick-red, the antennæ and tarsi whitish tinged with brown. Fore wing brick-red thickly irrorated with pale greyish brown; slight scarlet streaks just below costa and on subcostal nervure to end of cell. Hind wing white tinged with crimson, especially on costal area. Underside of fore wing pale scarlet.

Hab. Costa Rica, Carri Blanco (*Underwood*), type † ♀ in Coll. Rothschild. *Exp.* 50 millim.

*1319 *b*. Melese erythrastis.

Melese erythrastis, Dogn. Ann. Soc. Ent. Belg. li. p. 227 (1907); Roths. Nov. Zool. xvii. pl. 13. f. 41.

♂. Head and thorax reddish brown tinged with grey; palpi scarlet at sides, whitish in front, and brown at tips; frons with scarlet points at sides; antennæ with some scarlet at base; tegulæ slightly edged with scarlet; pectus and legs white, the fore coxæ at sides and femora above scarlet, the tibiæ tinged with brown above; abdomen scarlet, the anal tuft brown above, the ventral surface white. Fore wing scarlet, the costal area to beyond middle, the cell and area just beyond and below it suffused with brown with a slight scarlet streak below costa; a slight diffused

medial brownish band expanding into a fascia on medial part of inner margin. Hind wing whitish suffused with scarlet, especially on marginal areas; cilia pale yellow. Underside of fore wing scarlet with a grey-brown fascia on costa from near base to near apex expanding into a patch in upper angle of cell; hind wing whitish faintly tinged with scarlet, more strongly on inner area.

Hab. Fr. Guiana, St. Laurent Maroni, type † ♂ in Coll. Dognin. *Exp.* 32 millim.

*1319 *c*. Melese rubricata. (Plate XLVII. fig. 15.)

Melese rubricata, Dogn. Hét. Nouv. Am. Sud. i. p. 9 (1910).

♀. Head and thorax scarlet faintly tinged with brown, the antennæ browner; tibiæ tinged with brown, the mid and hind tarsi brownish grey; abdomen scarlet. Fore wing scarlet faintly tinged with brown, especially towards costa; minute obliquely placed antemedial dark spots above and below submedian fold; a greyish spot defined by black in end of cell, strongly constricted at middle; a round blackish postmedial spot above vein 6, elongate greyish spots defined by blackish above veins 5, 4, 3, and a blackish point above vein 2 below end of cell; cilia dark brown, scarlet and whitish at tips. Hind wing scarlet, the cilia whitish at tips.

Hab. Fr. Guiana, St. Laurent Maroni (*Le Moult*), type † ♀ in Coll. Dognin. *Exp.* 21 millim.

*1319 *d*. Melese aprepia.

Melese aprepia, Dogn. Ann. Soc. Ent. Belg. lii. p. 155 (1908).
Melese inconspicua, Roths. Nov. Zool. xvi. p. 49, pl. 7. f. 28 (1909).

Head, thorax, and abdomen ochreous tinged with red-brown; pectus, coxæ, and ventral surface of abdomen whitish. Fore wing ochreous irrorated with red-brown; a faint subbasal band of blackish suffusion from cell to vein 1; an annulate antemedial spot defined by black scales below the cell, a similar spot in end of cell bisected by a blackish streak, a similar elongate oblique mark below end of cell and large lunulate mark beyond the cell with elongate elliptical marks beyond it in the interspaces between veins 8 and 3, all defined by diffused black scales; a terminal series of small black spots; cilia rufous. Hind wing pale yellow.

Hab. Fr. Guiana, St. Jean and St. Laurent Maroni, type † ♂, ♀ in Coll. Dognin; Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ *inconspicua* in Coll. Rothschild. *Exp.* 20–26 millim.

*1319 *e*. Melese clagesi.

Melese klagesi, Roths. Nov. Zool. xvi. p. 49, pl. 7. f. 11 (1909).

♀. Head and thorax pale grey-brown, the patagia with oblique dark brown streak, the metathorax with dark brown patch; palpi crimson at sides and black behind; pectus and fore coxæ crimson;

legs black-brown, the tarsi white except at tips; abdomen crimson, the ventral surface white. Fore wing pale grey-brown irrorated with black-brown; two antemedial black points below the cell and a white point on vein 1; a rather figure-of-eight shaped mark outlined in black in end of cell, a slight discoidal lunule and point above base of vein 2; a hyaline fascia beyond the cell between veins 6 and 5 conjoined to a spot above vein 6 near its inner extremity and a spot below vein 5 near its outer extremity, all outlined in black; the terminal half of costa with whitish points; cilia dark brown with whitish points. Hind wing dark brown.

Hab. SURINAM, Maroewyn Valley, Aroewarwar Creek (*Klages*), type † ♀ in Coll. Rothschild. *Exp.* 28 millim.

*1319 *f.* Melese peruviana.

Melese peruviana, Roths. Nov. Zool. xvi. p. 48, pl. 7. ff. 7, 8 (1909).

Antennæ of male ciliated.

♂. Head and thorax crimson and yellow with patches of grey-brown on frons, tegulæ, patagia, and prothorax; pectus and legs crimson, the tibiæ streaked with grey-brown, the tarsi whitish; abdomen crimson. Fore wing grey-brown; a small crimson spot at base and subbasal spots in the cell and below vein 1; a slight crimson streak below medial part of costa; a small yellow antemedial spot defined by crimson in cell, a larger spot below the cell and short crimson streak above inner margin; an oblique medial series of

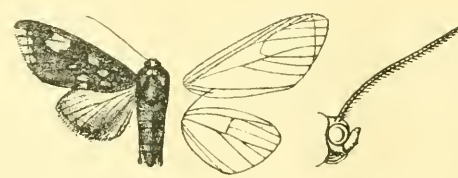

Fig. 71.—*Melese peruviana*, ♂. ½.

yellow spots defined by crimson in and below the cell and on vein 1; three similar spots between lower angle of cell and inner margin and a small crimson discoidal spot; a hyaline yellow conical postmedial patch defined by crimson from costa to below vein 5, its edges waved; a terminal yellow band defined by crimson and with waved inner edge from vein 7 to 3. Hind wing semihyaline white, the inner area tinged with crimson: the underside with the costa slightly tinged with crimson.

♀. Fore wing with the terminal band narrower, more maculate and extending to apex; hind wing wholly tinged with crimson.

Hab. PERU, Carabaya, S. Domingo (*Ockenden*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 38, ♀ 44 millim.

*1320 *a*. Melese columbiana. (Plate XLVII. fig. 16.)

Melese columbiana, Roths. Nov. Zool. xvi. p. 273 (1909).

♀. Head and thorax rufous with a greyish tinge; palpi crimson, brown in front except towards base; antennæ brown, the basal joint crimson at sides; pectus, coxæ, and femora above crimson, the tibiæ grey-brown, the tarsi whitish; abdomen crimson. Fore wing red-brown slightly tinged with darker brown; a small antemedial white spot defined by blackish above vein 1; a faint small dark spot in the cell towards extremity and slight discoidal lunule; a slight postmedial white bar from costa to vein 6 and small spot below vein 6; the costal edge crimson towards apex and the termen crimson with the cilia white from below apex to vein 3. Hind wing crimson.

Hab. Colombia, Bogotá, type † ♀ in Coll. Rothschild. *Exp.* 32 millim.

1320 *b*. Melese punctata. (Plate XLVII. fig. 17.)

Melese punctata Roths. Nov. Zool. xvi. p. 272 (1909).
Melese sixola, Schaus, A. M. N. H. (8) vi. p. 402 (1910).
Melese sixola frater, Schaus, A. M. N. H. (8) vi. p. 403 (1910).

♂. Head and thorax pale grey-brown mixed with crimson; palpi and frons crimson; antennæ brown, whitish at tips; pectus and legs crimson, the tibiæ tinged with brown, the tarsi whitish; abdomen crimson, ventrally whitish. Fore wing pale brown; a slight crimson streak below costa; a small blackish spot in middle of cell; a yellowish white antemedial spot edged with crimson on inner area, then obliquely placed yellowish white spots edged with crimson between lower angle of cell and inner margin and a similar double spot beyond upper angle above and below vein 6. Hind wing crimson.

Ab. 1. *frater*. Fore wing with single postmedial spot below vein 6 and the spot between bases of veins 3, 2 absent.

Hab. Costa Rica, Sixola R. (*Schaus*), 1 ♂; Colombia, Choko Prov., Condoto (*Spurrell*), 1 ♂; Ecuador, Bulim, type † ♂ in Coll. Rothschild. *Exp.* 24 millim.

*1320 *c*. Melese nebulosa.

Melese nebulosa, Joicey, A. M. N. H. (8) xviii. p. 58, pl. 14. f. 11 (1916).

♀. Head and thorax crimson and yellow; antennæ grey-brown except basal joint; palpi crimson; patagia with grey-brown stripe; legs grey-brown with some crimson at base, the tarsi white, the fore tarsi at base and extremities and the mid tarsi at base brown; abdomen crimson. Fore wing grey-brown mottled with pale crimson except on basal area, costal area to beyond middle, and terminal area; a subbasal crimson point in the cell and orange stripe edged with crimson above on base of inner margin; an antemedial crimson and orange spot below the cell conjoined to a spot

with yellowish white centre above vein 1; a crimson spot with pale edge in the cell towards extremity, a similar spot below end of cell, and conjoined pale crimson spots with deep crimson annuli on them above and below middle of vein 1; an oblique irregular pale crimson postmedial patch from costa to vein 5 with triangular yellow spot edged with deep crimson on it above vein 6 and elongate yellowish white spot edged with deep crimson above vein 6, its lower extremity hooked; short crimson streaks on extremities of veins 8 to 6. Hind wing crimson, the cilia yellow. Underside of fore wing crimson, the costal edge and apical area grey-brown, the latter narrowing to above tornus, obliquely placed white postmedial spots above and below vein 6.

Hab. Peru, San Gaban, type † ♀ in Coll. Joicey. *Exp.* 36 millim.

1324 *a*. **Melese chiriquensis.** (Plate XLVII. fig. 18.)

Melese chiriquensis. Schaus, Pr. U.S. Nat. Mus. xxix. p. 220 (1905).

♂. Head and thorax dark red-brown; palpi crimson above; basal joint of antennæ and back of head with slight crimson marks; pectus crimson; legs crimson at base, then brown and white; abdomen dorsally crimson, ventrally white and with brown lateral streaks. Fore wing greyish brown thickly irrorated with fuscous; a slight crimson mark at base of inner margin; a crimson antemedial spot below the cell with white point below it on vein 1; a bifid hyaline spot below costa beyond middle, its upper part small; some crimson-tinged white points on costa towards apex and on apical part of cilia. Hind wing with the basal half crimson, the terminal half brown with crimson spot below costa just beyond middle.

Hab. Costa Rica, Juan Vinas (*Schaus*), 1 ♂; Panama, Chiriqui, type † ♂ in U.S. Nat. Mus. *Exp.* 30 millim.

1325 *a*. **Melese pusilla.** (Plate XLVII. fig. 19.)

Melese pusilla, Roths. Nov. Zool. xvi. p. 272 (1909).

Head and thorax rufous; palpi crimson, brown in front except at base; antennæ with the basal joint crimson in front; pectus, fore coxæ, and the femora above crimson; abdomen crimson, the ventral surface and anal tuft pale brownish. Fore wing red-brown suffused with darker brown; antemedial white points defined by blackish below median nervure and above vein 1; a small blackish spot in middle of cell; a faint postmedial dark shade with three slight whitish spots on it towards costa, below which it is slightly incurved, strongly incurved below vein 4 and with a patch of whitish scales on it above inner margin. Hind wing crimson; the underside whitish tinged with crimson.

Hab. Surinam, Maroewyn Valley, Aroewarwar Creek; Br. Guiana, Potaro (*Klages*), type † ♂ in Coll. Rothschild; Brazil, Amazons, Ega (*Bates*), 1 ♂, Fonte Boa. *Exp.*, ♂ 20, ♀ 22 millim.

*1325 *b*. Melese quadripunctata.

Melese quadripunctata, Roths. Nov. Zool. xvi. p. 49, pl. 7. f. 15 (1909).

♀. Head and thorax greyish brown, the basal joint of antennæ, vertex of head, and patches on dorsum of tegulæ, at base of patagia, and on prothorax crimson; palpi and lower part of frons crimson; pectus and legs crimson, the fore and mid tibiæ fuscous brown in front; abdomen crimson. Fore wing red-brown; a slight crimson streak below basal half of costa, then the costal edge crimson; a small yellow antemedial spot edged with crimson on vein 1; obliquely-placed small crimson spots edged with black above and below base of vein 2; a small crimson spot edged with black beyond the cell in discal fold; cilia crimson at base, yellow at tips from apex to vein 2, then black-brown. Hind wing semihyaline white tinged with crimson; the underside with the costal area pale crimson.

Hab. Peru, Huancabamba, Cerro de Pasco (*Böttger*), type † ♀ in Coll. Rothschild. *Exp.* 44 millim.

*1325 *c*. Melese sordida.

Melese sordida, Roths. Nov. Zool. xvi. p. 271 (1909), & xviii. pl. 5. ff. 40, 41.

♂. Head and thorax pale grey-brown; palpi crimson behind; antennæ with the basal joint crimson on outer side; fore coxæ tinged with crimson, the tarsi whitish; abdomen crimson, the anal tuft and ventral surface brownish white. Fore wing pale grey-brown; a subbasal blackish point below the cell; a minute antemedial white spot defined by blackish just above vein 1; a blackish point in middle of cell; faint brownish medial marks above and below vein 1 and slight postmedial brownish marks with white scales on them above and below vein 6. Hind wing ochreous white, the inner area faintly tinged with crimson.

♀. Head and thorax red-brown, the tegulæ edged with crimson, the patagia with crimson streaks, the metathorax with crimson spot; fore wing red-brown, an antemedial crimson patch on inner area with white spot on it above vein 1, three obliquely-placed crimson medial spots between the cell and inner margin, a slight crimson and yellow postmedial mark below costa, and a small white subterminal spot defined by black below vein 6; hind wing crimson.

Hab. Peru, Carabaya, S. Domingo (*Ockenden*), type † ♂, ♀ in Coll. Rothschild, Tinguri. *Exp.*, ♂ 36, ♀ 40 millim.

*1325 *d*. Melese nigromaculata. (Plate XLVII. fig. 20.)

Melese nigromaculata, Roths. Nov. Zool. xvi. p. 272 (1909).

♂. Head and thorax rufous; abdomen rufous, the ventral surface and anal tuft brownish grey. Fore wing rufous slightly suffused with darker brown; an antemedial black point below the cell and whitish point defined by black above vein 1; a quadrate

black patch irrorated with whitish in the cell towards extremity; three obliquely placed small white spots defined by blackish between lower angle of cell and inner margin; postmedial small white spots defined by blackish on costa and in discal fold. Hind wing pale crimson; the underside brownish white.

♀. Fore wing with the termen and cilia darker brown; hind wing deeper crimson, the underside pale crimson.

Hab. Surinam, Maroewyn Valley, Aroewarwar Creek; Brazil, Minas Geraes (*Kennedy*), type † ♂ in Coll. Rothschild; Peru, Carabaya, Huacamayo, La Union. *Exp.*, ♂ 30, ♀ 32 millim.

*1325 *e*. Melese albogrisea. (Plate XLVII. fig. 21.)

Melese albogrisea, Roths. Nov. Zool. xvi. p. 273 (1909).

♀. Head and thorax white tinged with red-brown; abdomen pale grey-brown dorsally tinged with crimson. Fore wing white tinged with reddish brown; small antemedial white spots defined by blackish below median nervure and above vein 1; traces of a brownish bar in middle of cell and of an obliquely curved series of spots between lower angle of cell and inner margin; an oblique hyaline postmedial bar defined slightly by blackish from costa to discal fold, its outer edge waved; the costa towards apex and termen rather darker with the cilia tinged with crimson. Hind wing very pale reddish brown faintly tinged with crimson.

Hab. Paraguay, Sapucay (*Foster*), type † ♀ in Coll. Rothschild. *Exp.* 32 millim.

*1325 *f*. Melese castrena. (Plate XLVII. fig. 22.)

Melese castrena, Schaus, Pr. U.S. Nat. Mus. xxix. p. 220 (1905).

♂. Head and thorax pale brown; palpi crimson above; basal joint of antennæ and back of head with slight crimson marks; metathorax with orange patch; fore coxæ and base of femora above crimson; pectus and legs whitish; abdomen yellowish white, dorsally crimson except at extremity. Fore wing yellow-brown; a black point in middle of cell and slight discoidal point; scarlet points below median nervure before middle of cell and in extremity; a yellowish patch on middle of inner margin with scarlet antemedial annulus on it and two medial annuli; two minute hyaline spots below costa beyond middle, edged with blackish and with yellowish mark with scarlet scales on its edges above them on costa. Hind wing yellowish suffused with crimson on inner and terminal areas. Underside of fore wing with the cell suffused with crimson.

Hab. Brazil, Castro Paraña, type † ♂ in Coll. Schaus. *Exp.* 30 millim.

*1325 *g*. Melese pumila. (Plate XLVII. fig. 23.)

Melese pumila, Dogn. Ann. Soc. Ent. Belg. lii. p. 154 (1908).

♂. Head and thorax pale rufous; antennæ with the basal joint pink; pectus, coxæ, tarsi, and hind legs white, the fore femora pink

above; abdomen pink, the anal tuft and ventral surface white. Fore wing uniform pale rufous, the cilia pink at base, yellow at tips. Hind wing white faintly tinged with rufous towards termen, the inner margin tinged with pink towards tornus; cilia white.

Hab. Fr. Guiana, St. Laurent Maroni, type† ♂ in Coll. Dognin. *Exp.* 20 millim.

*1325 *h*. Melese flavescens.

Melese flavescens, Joicey, P. Z. S. 1917, p. 268, pl. 1, f. 11 (1918).

♂. Head, thorax, and abdomen yellow mixed with pale red-brown, the last with some whitish at sides at base; legs grey-brown, the tarsi white except at base. Fore wing pale red-brown striated with yellow; some yellow at base of inner margin, below the cell before middle and towards extremity, and a spot beyond end of cell; cilia yellowish white at tips from apex to above vein 3. Hind wing white, the inner area suffused with yellow. Underside white tinged with yellow, the gland on fore wing brown.

Hab. Argentina, Missiones (*Wagner*), type† ♂ in Coll. Joicey. *Exp.* 38 millim.

*1325 *i*. Melese innocua. (Plate XLVII. fig. 24.)

Melese innocua, Dogn. Hét. Nov. Am. Sud, ii. p. 14 (1911).

♂. Head, thorax, and abdomen pale crimson, the tegulæ at sides and patagia brownish; palpi deep crimson, the 2nd joint brown in front; antennæ brown, whitish towards tips; femora at extremities and tibiæ brown, the tarsi whitish. Fore wing reddish brown mixed with greyish; antemedial and medial yellow patches from submedian fold to inner margin defined by crimson and with crimson streak on vein 1, the former with white spot on it above vein 1 with black point before it; a small blackish spot in middle of cell and crimson spot below its extremity; a rather triangular white post-medial spot below vein 2, slightly edged with crimson and with two crimson points above it below the costa. Hind wing pale crimson. Underside of fore wing pale crimson with the costa dark brown.

Hab. Colombia, San Antonio (*Fassl*), type † ♂ in Coll. Dognin. *Exp.* 30 millim.

1326 will stand as **Melese binotata.**

1326 *a*. Melese dorothea.

Bombyx dorothea, Stoll, Pap. Exot. iv. pl. 397. f. K. (1782).
Phalæna leucostigma, Sepp, Surin. Vlind. pl. 112 (1852).

Antennæ of male ciliated; fore wing with elliptical fuscous scale-like gland with tuft of white hair below it; hind wing with veins 7, 8 from angle of cell.

♂. Head crimson, the frons grey except at sides; tegulæ crimson, grey at base and sides; patagia orange at base, then grey with some crimson scales and crimson outer edge; thorax grey in front, orange and crimson behind; pectus and legs crimson, the femora and tibiæ striped with grey, the tarsi whitish; abdomen orange, dorsally suffused with crimson except at extremity. Fore wing fuscous brown faintly striated with crimson and with fine crimson streak below costa; some orange-red at base of inner margin; an irregular crimson-edged orange medial band from cell to inner margin sometimes with a slight bar before it; a rather quadrate spot in end of cell, a small spot beyond the cell and triangular spot below end; a triangular crimson-edged whitish postmedial spot above vein 5 with crimson-edged yellow spot above it and incurved band from it to inner margin; the apical part of terminal area bright yellow to below vein 4, its inner edge somewhat dentate. Hind wing yellowish white, the inner area tinged with crimson.

♀. Fore wing with the hyaline spot beyond the cell smaller and more rounded; the terminal yellow band narrow; hind wing wholly suffused with pink.

Hab. Surinam; Fr. Guiana, St. Jean Maroni (*Schaus*), 3 ♂, St. Laurent Maroni, 4 ♂. *Exp.*, ♂ 34, ♀ 46 millim.

Larva. Black with yellow subdorsal, lateral, and sublateral stripes; the warts blue with tufts of long black hairs.

M. cruenta, Sepp, is probably a distinct species.

1326 *b*. Melese drucei.

Melese drucei, Roths. Nov. Zool. xvi. p. 271 (1909), & xviii. pl. 5. ff. 37. 38.

♂. Head scarlet with grey-brown patch on frons; antennæ grey-brown except the basal joint; thorax grey-brown, the tegulæ and metathorax with large scarlet patches; the patagia and dorsum of thorax with scarlet streaks; pectus scarlet, legs grey, the femora scarlet above, the tibiæ streaked with scarlet and the tarsi whitish; abdomen crimson. Fore wing grey-brown irrorated with scarlet; a slight scarlet streak below costa; an irregular antemedial patch edged with scarlet from cell to inner margin, followed by spots in middle of cell and above base of vein 2; a minute spot in end of cell and three spots between lower angle of cell and inner margin; a triangular white spot edged with scarlet below base of vein 6 and small scarlet-edged yellow spot above vein 6; a terminal yellow band with minutely dentate scarlet inner edge from apex to vein 4. Hind wing semihyaline white, the inner area slightly tinged with crimson; the underside with the costal area tinged with scarlet.

♀. Fore wing with the markings on inner half scarlet, the spot in middle of cell minute, the terminal yellow band absent; hind wing wholly tinged with crimson.

Hab. Venezuela, 1 ♂: Br. Guiana, Omai, Potaro; Surinam, Maroewyn Valley, Aroewarwar Creek (*Klages*), type † ♂ in Coll. Rothschild; Brazil, Amazons, Fonte Boa; Peru, Carabaya, R. Huacamayo, La Union. *Exp.*, ♂ 38, ♀ 44 millim.

*1326 *c*. Melese hebetis.

Melese hebetis, Roths. Nov. Zool. xvi. p. 271 (1909), & xviii. pl. 5. f. 39.

♂. Head and thorax yellow faintly tinged with scarlet; palpi scarlet; frons brownish; antennæ brown with the basal joint scarlet; brownish streaks on outer edge of patagia and dorsum of thorax; pectus yellow, scarlet in front; coxæ scarlet; legs grey, the femora scarlet above, tarsi whitish; abdomen pale crimson, the extremity brownish, the ventral surface yellowish. Fore wing red-brown with indistinct pale striæ; the base of inner margin yellow; a yellow spot on the brand and an ill-defined medial patch from cell to inner margin; a round white spot faintly defined by scarlet below base of vein 6; the costal edge tinged with scarlet towards apex; a terminal yellow band with minutely dentate inner edge from apex to below vein 4. Hind wing semihyaline white; the underside with the costal area faintly tinged with scarlet to end of cell.

Hab. Peru, R. Huacamayo, La Union (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 36 millim.

1326 *d*. Melese hampsoni.

Melese hampsoni, Roths. Nov. Zool. xvi. p. 272 (1909), & xviii. pl. 5. f. 42.

Antennæ of male ciliated.

♂. Head and thorax grey tinged with brown; palpi with the 2nd joint crimson behind; tegulæ crimson below; patagia with some black-brown hair at extremity; metathorax with crimson patch; pectus and base of legs pale crimson, tibiæ and tarsi brown, the latter with whitish band at base; abdomen crimson, the anal tuft and ventral surface yellow. Fore wing brownish grey, the

Fig. 72.—*Melese hampsoni*, ♂. ½.

terminal area with dark brown irroration; a patch of yellow thickly irrorated with deep red on inner margin from near base to beyond middle, expanding at middle up to origin of vein 2, with a small comma-shaped white mark edged with deep red on its upper edge before middle, a red point edged with black-brown above it below the cell; a blackish point in middle of cell and a postmedial point below vein 6. Hind wing pale crimson, the veins deeper crimson, the cell whitish; the underside greyish slightly tinged with crimson.

Hab. Br. Guiana, Potaro, type † ♂ in Coll. Rothschild; Fr. Guiana, Nouveau Chantier (*Le Moult*), in Coll. Dognin, St. Laurent Maroni, 2 ♂; Surinam; Brazil, Amazons, Fonte Boa; Peru, Yahuarmayo, 1 ♂. *Exp.* 26 millim.

1326 *e*. **Melese quadrina**. (Plate XLVII. fig. 25.)

Melese quadrina. Schaus, A. M. N. H. (8) vi. p. 403 (1910).

♂. Head and thorax pale grey-brown; palpi crimson, brown in front; antennæ with the basal joint crimson; tegulæ with slight crimson dorsal streak; pectus pale crimson, the legs brown with the femora crimson above, the tarsi whitish; abdomen crimson, the extremity and ventral surface yellow. Fore wing pale grey-brown; antemedial blackish points in and below the cell and a small spot with white centre above vein 1; a round blackish spot in middle of cell; traces of a blackish shade from lower angle of cell to inner margin; a minute white spot edged with black beyond the cell in discal fold. Hind wing pale crimson, the cilia tipped with white; the underside brownish white.

Hab. Costa Rica, Juan Viñas (*Schaus*), 1 ♂. *Exp.* 36 millim.

*1326 *f*. **Melese paranensis**. (Plate XLVII. fig. 26.)

Melese paranensis. Dogn. Hét. Nouv. Am. Sud, ii. p. 15 (1911).

♂. Head and thorax grey-brown; palpi crimson; vertex of head, basal joint of antennæ, streaks on dorsum of tegulæ and upper edge of patagia, and the metathorax orange-red; legs grey-brown except at base, the fore tibiæ with crimson streak in front, the tarsi white above; abdomen crimson. Fore wing grey-brown; the costal area slightly tinged with orange-red; the basal half of inner area suffused with reddish ochreous; a very indistinct reddish ochreous antemedial band from cell to the inner area; a yellow patch defined by red beyond the cell between veins 6 and 4, with an indistinct diffused red band from it, oblique to submedian fold and bent outwards to inner margin; the termen rather darker; cilia orange-red from apex to below vein 4. Hind wing semihyaline white, the costa tinged with ochreous, the inner area suffused with crimson; the underside with the costal area orange-yellow.

Hab. Argentina, Haute-Paraña, San Ignacio Missiones (*Wagner*), type ♂ in Coll. Dognin. *Exp.* 40 millim.

1327 *a*. **Bertholdia fumida**. (Plate XLVII. fig. 27.)

Bertholdia fumida. Schaus, A. M. N. H. (8) vi. p. 203 (1910).

Head and thorax chocolate-brown; palpi white in front; antennæ with the basal joint white; tegulæ edged with white expanding into a dorsal spot; patagia slightly edged with grey above; pectus white, brown at sides and with crimson streaks below the wings; legs brown, white at base, the tibiæ with white bands at extremities, the tarsi white, black at extremities, the fore coxæ at sides and femora above crimson; abdomen crimson, the anal tuft and ventral surface white, lateral series of black spots. Fore wing chocolate-brown shading to ochreous brown at inner margin and on terminal area except towards apex, veins 2, 3 with

slight pale streaks; a small antemedial white spot on vein 1; a wedge-shaped hyaline white patch extending on costa from middle to towards apex, its lower edge curving down to vein 4 and slightly indented at vein 5; its outer edge waved and produced below vein 6, some dark brown points on it and two small spots on vein 5, two small annuli often present on or just beyond its lower extremity, some black suffusion beyond it; a fine curved white line just before termen, the area beyond it grey and blackish; cilia chequered white and blackish towards apex, the white indenting the termen below apex. Hind wing semihyaline white, the inner area tinged with brown and the inner margin clothed with crimson hair; a slight brown discoidal striga. Underside of fore wing with white and brown streaks, a crimson fascia in end of cell; hind wing with black-brown fascia below base of costa.

Hab. Costa Rica, Tuis (*Schaus*), 2 ♂, 1 ♀, Juan Vinas (*Schaus*), 1 ♀. *Exp.*, ♂ 46, ♀ 50 millim.

1328 *a*. Bertholdia crocea. (Plate XLVII. fig. 28.)

Bertholdia crocea, Schaus, A. M. N. H. (8) vi. p. 202 (1910).

Head and thorax purple-brown, the dorsal crest and metathorax more fulvous brown; palpi white, black-brown behind; tegulæ edged with white expanding into a dorsal spot; pectus white with brown and crimson streaks below the wings; legs white, the femora at extremities and the tibiæ except at extremities chocolate-brown, the fore coxæ on outer side and the femora above crimson; abdomen crimson, the extremity and ventral surface white, lateral series of black spots. Fore wing brownish ochreous irrorated with blackish, the costal half suffused with purple-brown; a small antemedial white spot on vein 1; faint diffused dark postmedial fasciæ above vein 3 and in submedian fold; a wedge-shaped hyaline white patch extending on costa from middle to towards apex, its lower edge curving down to vein 4 and slightly indented at vein 5, its outer edge sinuous and produced below vein 6, some black points on it and two small spots on vein 6; a fine curved white subterminal line, the area beyond it darker, blackish at apex; cilia chequered with white except towards tornus, the white below apex intersecting the termen. Hind wing semihyaline white, the inner area suffused with crimson. Underside of fore wing white, a crimson patch in cell and a dark streak in its lower extremity, the terminal area dark to vein 3 expanding into a patch at apex; hind wing with a black streak below base of costa.

Hab. Mexico, 1 ♀; Costa Rica, Tuis (*Schaus*), 1 ♂, Juan Vinas (*Schaus*), 2 ♂; Venezuela, Merida (*Briceno*), 1 ♀. *Exp.* 44–46 millim.

1329. Bertholdia braziliensis, insert :—

Bertholdia soror, Dyar, Proc. Ent. Soc. Wash. iv. p. 391 (May 1901),

which has precedence.

*1329 *a*. Bertholdia rubromaculata.

Bertholdia rubromaculata, Roths. Nov. Zool. xvi. p. 50, pl. 7. f. 17 (1909).

♀. Head and thorax pale ochreous mixed with red-brown, the patagia edged with crimson towards extremities; palpi white, crimson above; basal joint of antennæ crimson; pectus and legs white, the fore coxæ at sides and femora above crimson, the femora at extremities, part of tibiæ and the tarsi at extremities brown; abdomen crimson with lateral series of black spots, the anal tuft and ventral surface white. Fore wing red-brown, irrorated with blackish, the inner area greyish ochreous; some scarlet at base of inner margin, an antemedial patch below the cell and a small white spot on vein 1; a large postmedial hyaline patch from costa to vein 4, yellowish white at costa and defined by black, its lower edge angled at vein 5 and its outer excurved above and below vein 5, some black points on it on the veins, the area round the patch tinged with grey; cilia dark brown with some crimson except towards tornus. Hind wing white, the disk semihyaline, the inner area tinged with crimson. Underside of fore wing suffused with crimson except below and beyond the postmedial patch; hind wing with some crimson at base.

Hab. Peru, Carabaya, Oconeque (*Ockenden*), type † ♀ in Coll. Rothschild. *Exp.* 42 millim.

*1329 *b*. Bertholdia steinbachi.

Bertholdia steinbachi, Roths. Nov. Zool. xvi. p. 50, pl. 7. f. 19 (1909).

♀. Head white with some crimson at sides; palpi crimson, white in front; basal joint of antennæ brownish, crimson on outer side; thorax crimson slightly mixed with brownish; pectus and legs white, the fore coxæ at sides and femora above crimson, the femora at extremities and part of tibiæ brown; abdomen crimson, the extremity and ventral surface white. Fore wing crimson, some brownish at base; a small antemedial white spot on vein 1; a large postmedial hyaline patch from costa to vein 4, white at costa and yellowish below costa, some slight black points on it on the veins, its inner edge slightly angled at vein 5 and its outer excurved above and below vein 5, the area just below it and the terminal area purplish grey irrorated with brown. Hind wing semihyaline white, the inner area slightly tinged with crimson. Underside of fore wing with the inner area ochreous white.

Hab. N. Argentina, Salta (*Steinbach*), type † ♀ in Coll. Rothschild. Tucuman. *Exp.* 42 millim.

*1330 *a*. Bertholdia occendeni.

Bertholdia ockendeni, Roths. Nov. Zool. xvi. p. 50, pl. 7. f. 16 (1909).

♂. Head and thorax red-brown slightly mixed with ochreous, the tegulæ edged with white in front and at sides; palpi white with

black-brown streak at side of 2nd joint, the 3rd joint black-brown above; antennæ with the basal joint white at sides; pectus and legs white, the fore coxæ at sides and base of femora above crimson, the extremity of femora, part of tibiæ and extremity of tarsi brown; abdomen crimson, the extremity and lateral series of spots black, the ventral surface white. Fore wing red-brown irrorated with blackish, the inner area ochreous; a small antemedial yellowish spot on vein 1: a large hyaline postmedial patch from costa to vein 4, white at costa and defined by black, its outer edge produced above and below vein 5, irrorated with some black points and with two minute spots on vein 5: the terminal area greyish with a slight pale subterminal line defined on outer side by blackish from vein 7 to inner margin: cilia with yellowish white points at veins 7 to 3. Hind wing white, semihyaline except at costa and termen, the inner area tinged with crimson. Underside of fore wing with some crimson in and below the cell, the inner area white; hind wing with brown fasciæ below basal part of costa and in upper part of cell.

Hab. PERU, Carabaya, Oconeque (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

1333 *a*. Bertholdia grisescens.

Bertholdia grisescens. Roths. Nov. Zool. xvi. p. 50, pl. 7. f. 18 (1909).

♀. Head and thorax pale brown thickly irrorated with white; palpi white with some crimson and brown above; antennæ with the basal joint crimson at sides; pectus and legs white, the fore coxæ and femora crimson, the extremities of femora, part of tibiæ, and tarsi at tips brown; abdomen crimson, the extremity and a lateral series of spots black, the ventral surface white. Fore wing brownish white irrorated with black, some reddish brown suffusion in and below end of cell; a slight crimson streak below base of costa; small obliquely placed yellow antemedial spots below the cell and on vein 1; a large postmedial hyaline patch from costa to vein 4, white at costa and defined by black, with some black points on the veins, its inner edge slightly angled at vein 5 and its outer excurved above and below vein 5, some blackish suffusion beyond it above and below vein 7; the costal edge crimson towards apex; cilia blackish with crimson points at veins 7 to 2. Hind wing semihyaline, tinged with pale brown except on disk, the inner area with some crimson hair; the costal edge towards apex and the cilia at tips except towards tornus white. Underside of fore wing with crimson patch in end of cell; hind wing with brown fascia on basal half of costa.

Hab. COLOMBIA: BRAZIL, Rio Janeiro, Tijuca (*Wagner*), 1 ♀; ECUADOR, R. Capayas, Salidero; PERU, R. Toro, La Merced (*Simons*), type † ♀ in Coll. Rothschild, R. Inambari, La Oroya, Carabaya, Tinguri, S. Domingo; PARAGUAY, Sapucay. *Exp.* 50 millim.

*1336 *a*. Ammalo constellata. (Plate XLVIII. fig. 1.)

Ammalo constellata, Dogn. Ann. Soc. Ent. Belg. liii. p. 221 (1909).

♀. Head yellowish white, the palpi, except at tips of 2nd and 3rd joints which are yellow, a band across frons and the antennæ red-brown; thorax red-brown, the tegulæ and patagia with yellowish white patches; pectus yellow; fore and mid tibiæ brown, the 1st joint of fore tarsi with yellowish white band, the mid tibiæ and 1st two joints of tarsi with yellowish white bands, the hind tibiæ, the spurs, and the tarsal joints with brown rings; abdomen yellow with subdorsal blackish spots on 4th and 5th segments and ventral series of slight bars. Fore wing dark reddish brown faintly striated with yellowish, the terminal area somewhat paler; a large yellowish patch on basal area with numerous yellowish white spots on it defined by red-brown confluent with a similar quadrate patch from middle of costa to median nervure; a similar patch at apex. Hind wing pale yellowish suffused with brown except at base and in cell, the inner area somewhat paler.

Hab. Colombia, type † ♀ in Coll. Dognin. *Exp.* 52 millim.

1337. Ammalo helops.

Larva. Dyar, Proc. Ent. Soc. Wash. xiii. p. 229 (1911).

Dull reddish densely clothed with thick tufts of rather short stiff black hairs: somites 3, 4 with two warts above the stigmatal wart, the abdominal somites with wart iv. above and behind the spiracle and rather smaller than the others; claspers purplish red; head rounded, mahogany red, the sutures paler.

1337 *a*. Ammalo trujillaria. (Plate XLVIII. fig. 2.)

Ammalo helops var. *trujillaria*, Dogn. Ann. Soc. Ent. Belg. xlix. p. 148 (1905).

♂. Head and thorax red-brown; abdomen yellowish suffused with red-brown and with obscure blackish bands except on ventral surface. Fore wing greyish tinged with red-brown especially on basal area and thickly striated with pale red-brown, the terminal area suffused with red-brown; an obscure pale red-brown patch in the cell towards extremity and traces of a diffused curved postmedial band from vein 7 to 2. Hind wing yellowish tinged red-brown especially on apical area. Underside of both wings yellowish diffused with red-brown.

Hab. Peru, Trujillo, 3 ♂, type † ♂ in Coll. Dognin. *Exp.* 64 millim.

*1337 *b*. Ammalo paranomon. (Plate XLVIII. fig. 3.)

Ammalo paranomon, Dyar, Pr. U.S. Nat. Mus. xlii. p. 54 (1912).

♂. Head and thorax dark brown; the tibiæ and tarsi blackish on outer side, the fore femora on inner side and hind tibiæ at

extremities reddish; abdomen red with blackish segmental bands. Fore wing dark brown, the costa, veins, and inner margin blackish; some red at base of inner area joined by a diffused subbasal band from below the costa; a medial reddish band from below costa forking round a large discoidal patch, then oblique and ending at vein 1; a rather maculate reddish subterminal line slightly excurved below veins 7 and 5. Hind wing pale red with greyish brown subterminal band; cilia greyish.

Hind wing with vein 8 obsolescent.

Hab. Mexico, Zacualpan (*Muller*). *Exp.* 60 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

*1337 *c*. Ammalo cirphoides. (Plate LXVI. fig. 2.)

Halisidota cirphoides, Roths. Nov. Zool. xxiii. p. 271 (1916).

♂. Head, thorax, and abdomen ochreous slightly tinged with rufous; palpi with some dark brown hair at side of 2nd joint; fore femora above and tibiæ on inner side with some dark brown hair. Fore wing ochreous white with a rufous tinge on basal area, along costa and median nervure to middle, and on inner margin to near tornus; an oblique deep rufous streak from apex to vein 6, diffused below and a faint diffused curved rufous subterminal line from it to inner margin; cilia rufous to vein 3. Hind wing ochreous white, thinly scaled.

Hab. Colombia, Monte Tolima (*Fassl*), type † ♂ in Coll. Rothschild. *Exp.* 44 millim.

1339. Ammalo insulata, insert :—

Ammalo arraraca, Jord. Nov. Zool. xxiii. p. 127 (1916).

A form described on differences in the genitalia only.

Larva. Swainson, J.N. York Ent. Soc. viii. p. 33 (1900).

Hairy, black; dorsal and subdorsal series of white spots, later reduced to thin lines; 1st, 3rd, 7th, and 9th somites dull red, also the lateral area of 4th, the 1st and last somites with long white hairs among the black ones.

Food-plant: Jack-in-the-bush.

*1340 *a*. Ammalo tenerosa. (Plate XLVIII. fig. 4.)

Ammalo tenerosa, Dyar, Pr. U.S. Nat. Mus. xliv. p. 286 (1913).

♂. Head and thorax white, the tegulæ and fore coxæ yellow; abdomen yellow, white at base, with dorsal series of small black spots and lateral series of points, the ventral surface white. Wings white; fore wing with the costa yellow towards base.

Hab. Mexico, Misantla (*Muller*). *Exp.* 34 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

*1343 *a*. Glaucostola underwoodi.

Glaucostola underwoodi, Roths. Nov. Zool. xvii. p. 187, pl. 14. f. 3 (1910).

♂. Head orange; palpi blackish with the 1st joint and extremity of 2nd joint orange; antennæ brown except the basal joint; thorax pale brown with slight whitish streaks on tegulæ and upper edge of patagia; pectus and legs pale brown suffused with white; abdomen brown with whitish dorsal streak and slight segmental lines, the ventral surface suffused with white, the anal tuft orange below. Fore wing pale brown with faint whitish streaks on median nervure and basal half of submedian fold and a stronger streak above inner margin. Hind wing black-brown with a large wedge-shaped white patch below the cell from base to near termen where its extremity is rounded. Underside of fore wing with the fovea and area surrounding it white, an oblique white patch beyond the cell between veins 7 and 3 with sinuous outer edge.

Hab. Costa Rica (*Underwood*), type † ♂ in Coll. Rothschild. *Exp.* 38 millim.

1343 *b*. Glaucostola metaxantha. (Plate XLVIII. fig. 5.)

Glaucostola metaxantha, Schaus, Pr. U.S. Nat. Mus. xxix. p. 221 (1905).

♀. Head orange; palpi, lower part of frons, antennæ, and a spot on vertex of head dark brown; thorax brown with orange stripes on tegulæ and upper edge of patagia; pectus yellow at sides; legs grey-brown; abdomen orange with broad black band near extremity, lateral brown stripes and the terminal segments on ventral surface brown. Fore wing black-brown with some orange at base of inner margin; slight yellowish streaks below basal half of costa, in cell and in interspaces of inner half; a diamond-shaped white patch below the cell and an oblique band from below costa beyond middle to vein 3 near termen. Hind wing orange, the apical area fuscous brown from middle of costa to termen at vein 1. Underside of fore wing with the spot below the cell yellow, hind wing with the brown on costa extending to near base.

Hab. Costa Rica. Sitio (*Schaus*), 2 ♀, Tuis, type † ♀ in U.S. Nat. Mus. *Exp.* 36 millim.

*1343 *c*. Glaucostola binotata. (Plate XLVIII. figs. 6 ♂, 7 ♀.)

Glaucostola binotata, Schaus, Pr. U.S. Nat. Mus. xxix. p. 221 (1905).

♀. Head and thorax grey-brown; basal joint of antennæ and a pair of spots on back of head yellow; abdomen orange with dorsal black stripe from base to the broad black band before extremity, lateral fuscous stripes, the ventral surface white with the extremity fuscous. Fore wing fuscous brown, the base of inner area yellow; the interspaces of terminal area with dirty yellowish fasciæ, a dirty

white somewhat conical antemedial patch below the cell and a similar triangular patch beyond the cell, its apex pointing towards termen. Hind wing with the basal half orange, the terminal half fuscous black with rather irregular inner edge.

♂. Back of head with yellow patch; tegulæ with yellow fasciæ; abdomen with the dorsal stripe reduced to a spot at base; hind wing with the terminal band narrow and ending at vein 1.

Hab. Br. Guiana, Essequebo, Rockstone, type † ♀ in U. S. Nat. Mus.; Fr. Guiana, St. Laurent Maroni. ♂ in Coll. Dognin. *Exp.* 30 millim.

*1343 *d.* Glaucostola maroniensis.

Glaucostola maroniensis, Joicey, P. Z. S. 1917, p. 268, pl. 1. f. 10 (1918).

♂. Head orange with a black-brown spot between antennæ, which are black-brown; lower part of frons and palpi black-brown; tegulæ orange with black-brown dorsal and lateral patches; thorax grey-brown with black-brown patches on pro- and metathorax and the patagia edged with black-brown, the shoulders with slight orange marks above origin of fore wing; abdomen orange with small black spot at base of dorsum and dorsal band, on two terminal segments extending at sides to the two segments before them, the anal tuft orange; pectus brown in front; legs dark brown striped with whitish. Fore wing dark brown with a diffused grey streak in terminal half of cell and in the interspaces of terminal area, those below vein 3 extending to below end of cell: the base of inner margin yellow; a rather diamond-shaped creamy white antemedial patch from cell to inner margin, its inner edge waved; a postmedial white patch between veins 8 and 3, its outer edge oblique below. Hind wing orange, the costal area yellowish white; a black-brown terminal band, obsolescent towards apex, broader at middle and ending at vein 1. Underside of fore wing yellowish white except towards costa to middle, its outer edge oblique to inner margin near tornus, the tuft in the fovea pure white; hind wing with the terminal band extending along costa to middle, its inner edge slightly waved and narrowing to a point at submedian fold.

Hab. Fr. Guiana, St. Jean Maroni (*Le Moult*), type † ♂ in Coll. Joicey. *Exp.* 26 millim.

1343 *e.* Glaucostola flavida.

Glaucostola flavida, Schaus, Pr. U.S. Nat. Mus. xxix. p. 221 (1905).

Fore wing of male without fovea below the cell: hind wing with the costa evenly arched.

♂. Head and thorax reddish brown; palpi orange at base, fuscous at tips; antennæ blackish with the basal joint orange, some orange round neck; pectus orange; legs orange at base, fuscous at

tips; abdomen orange. Fore wing reddish brown with some orange at base of inner margin and traces of a dusky discoidal lunule.

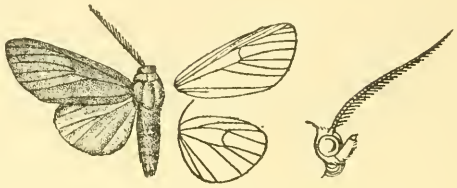

Fig. 73.—*Glaucostola flavida*, ♂. ½.

Hind wing uniform orange. Underside of fore wing suffused with orange.

Hab. Fr. Guiana, St. Laurent Maroni, 1 ♂, type † ♂ in U.S. Nat. Mus. *Exp.* 40 millim.

1344 *a*. **Hyperthæma perflammans.** (Plate XLVIII. fig. 8.)

Hyperthæma perflammans, Hmpsn. Nov. Zool. xxiii. p. 232 (1916).

♂. Head, thorax, and abdomen brilliant crimson-scarlet; antennæ black-brown; fore legs and mid and hind tibiæ and tarsi black, the fore femora and the tibiæ with slight white streaks; abdomen with small lateral and sublateral black spots except towards base. Fore wing brilliant crimson-scarlet, the veins streaked with blackish; a subbasal white point on median nervure; a rather crescentic antemedial white spot defined by black in submedian interspace and a similar but rather ovate postmedial spot between veins 6 and 5; cilia brown. Hind wing white; some pale crimson hair at base; the costal and terminal areas fuscous brown, the former expanding into a triangular patch at end of cell, the latter expanding on apical area and at inner margin to before middle; the veins beyond lower angle of cell streaked with brown. Underside of fore wing fuscous brown with white spots as above.

Ab. 1. Fore wing with the antemedial spot larger, the postmedial spot more triangular. Ecuador.

Hab. Ecuador, Paramba (*Rosenberg*), 1 ♂; Peru, El Porvenir, 2 ♂ type, Chanchamayo, 1 ♂. *Exp.* 46–50 millim.

*1344 *b*. **Hyperthæma reducta.**

Hyperthæma reducta, Joicey, A. M. N. H. (8) xviii. p. 59, pl. 14. ff. 12 ♂, 13 ♀ (1916).

♂. Head, thorax, and abdomen brilliant crimson; antennæ dark brown; 3rd joint of palpi dark brown in front; tegulæ with black points; tibiæ and tarsi black-brown; abdomen with lateral series

of black spots and sublateral spots except at base. Fore wing brilliant crimson, the costal edge dark brown; a black point at base of median nervure; a small antemedial white spot defined by black in submedian fold and a similar but larger postmedial spot between veins 6 and 5. Hind wing dark brown with the base of cell and area below the cell obliquely white expanding into a spot beyond the discocellulars and with some crimson hair on inner area. Underside of fore wing dark brown with some crimson at base, the postmedial spot white.

♀. Fore wing with the antemedial spot replaced by a faint blackish spot.

Ab. 1. ♀. Fore wing without the postmedial spot.

Hab. Colombia, Choco, R. Siato, type † ♂ in Coll. Joicey, La Selva San Juan, type † ♀. *Exp.* 46–52 millim.

*1345 *a*. Hyperthæma hoffmannsi. (Plate XLVIII. fig. 9.)

Hyperthæma hoffmannsi, Roths. A. M. N. H. (8) iv. p. 223 (1909).

♂. Head, thorax, and abdomen crimson; antennæ brown; tegulæ with black points; tibiæ and tarsi brown, the 1st joint of tarsi whitish; abdomen with lateral series of black spots. Fore wing crimson, the terminal half tinged with brown in the interspaces; a subbasal black point in the cell; an antemedial pure white patch defined by black from cell to inner margin, its outer edge angled in submedian fold and on vein 1 below which it is narrow; a postmedial white spot defined by brown and with sinuous edges from above vein 6 to vein 4; the termen brown. Hind wing semihyaline white with brown terminal band expanding at tornus; the underside with the costal area brown, some crimson at base.

♀. Hind wing black-brown with the basal area white.

Hab. Brazil, Teffé (*Hoffmanns*), type † ♂, ♀ in Coll. Rothschild; Allianca. *Exp.*, ♂ 34, ♀ 36 millim.

*1345 *b*. Hyperthæma coccinata. (Plate XLVIII. fig. 10.)

Hyperthæma coccinata, Schaus, Pr. U.S. Nat. Mus. xxix. p. 222 (1905).

♂. Head, thorax, and abdomen brilliant crimson; palpi black at tips; antennæ brown; tegulæ with black points; legs brown, crimson at base; abdomen with lateral and sublateral series of black spots. Fore wing brilliant crimson; a black point at base; a round white spot edged with black below the cell before middle and a similar spot beyond the cell between veins 6 and 5; cilia brown. Hind wing with the basal area white with slight crimson hair at base; the rest of wing brown with round white spot beyond the cell.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 34 millim.

*1346 *a*. Hyperthæma ruberrima.

Hyperthæma ruberrima, Schaus, Pr. U.S. Nat. Mus. xxix. p. 221 (1905).

Antennæ of male serrate and fasciculate.

♂. Head, thorax, and abdomen brilliant crimson; antennæ brown; tegulæ with small black spots; tibiæ and tarsi blackish slightly streaked with white, the 1st joint of fore and mid tarsi and the medial joints of hind tarsi white; abdomen with lateral and sublateral series of black spots. Fore wing brilliant crimson; a black point with white points on each side of it at base of median

Fig. 74.—*Hyperthæma ruberrima*. ♂. ½.

nervure; a round white spot edged with black below the cell before middle, a similar spot beyond the cell between veins 6 and 4; cilia brown. Hind wing white, with some crimson hair at base; the costal and inner areas towards termen, the veins of terminal area and the termen fuscous brown.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in U.S. Nat. Mus. *Exp.* 42 millim.

*1347 *a*. Ochrodota funebris.

Ochrodota funebris, Roths. A. M. N. H. (8) iv. p. 225 (1909); id. Nov. Zool. xviii. pl. 5. f. 1.

♂. Head and thorax dark red-brown; coxæ yellowish white; abdomen black-brown with the ventral surface yellowish white. Fore wing deep red-brown with numerous pale striæ; a pure white spot below base of costa; the discocellulars slightly darker; traces of a postmedial series of dark striæ with two white points below costa, excurved to vein 4, then oblique: a subterminal white point below costa and traces of some dark striæ and points. Hind wing dark brown; the underside paler.

Hab. Peru, Huanuco, Pozuzu (*Hoffmans*), type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

*1347 *b*. Ochrodota atra.

Ochrodota atra, Roths. A. M. N. H. (8) iv. p. 207 (1909); id. Nov. Zool. xvii. pl. 12. f. 5.

♂. Head and thorax very dark brown, the back of head, tegulæ at base, and prothorax with small orange spots: palpi yellowish at

base; basal joint of antennæ white in front; pectus white, the legs banded brown and white; abdomen black-brown, the ventral surface white. Fore wing very dark red-brown irrorated with blackish and with numerous faint pale striæ; a patch of small yellow spots defined by rufous extending on costa from base to near middle and down to vein 1, its outer edge obliquely rounded, a dark antemedial spot on it at costa; three small obliquely placed yellow postmedial spots from costa, followed by some reddish yellow below costa, two subterminal points from costa and two points on costa close to apex. Hind wing blackish brown with some yellowish on costa to beyond middle; the underside with the costal area and upper part of cell whitish to beyond middle.

Hab. COLOMBIA; PERU. R. Inambari, La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

*1347 *c*. Ochrodota brunnescens.

Ochrodota brunnescens. Roths. A. M. N. H. (8) iv. p. 207 (1909); id. Nov. Zool. xvii. pl. 12. f. 3.

♂. Head and tegulæ pale yellow, the vertex of head with orange streak, the tegulæ with orange spots and orange outer edge; palpi, frons, and antennæ tinged with brown; thorax red-brown with some orange on outer edge of patagia; pectus and legs pale yellow, the fore and mid tibiæ and tarsi banded with brown; abdomen yellowish white, the terminal half dorsally pale brown. Fore wing with the basal area pale yellow tessellated with orange annuli and with some red-brown suffusion on costa before middle, its outer edge obliquely curved from middle of costa to inner margin near base; the rest of wing red-brown with some dark irroration and pale striæ; some diffused blackish at end of cell; a pale yellow patch on apical part of costa, crossed by the faint minutely waved postmedial brown line which is slightly excurved above vein 4, then oblique, also by the faint double brown subterminal line which is excurved below costa and at middle; a terminal series of slight black points. Hind wing pale yellow with some red-brown suffusion on termen expanding below apex and into a slight dark spot below vein 2.

Hab. SURINAM, Maroewyn Valley, Aroewarwar Creek (*Klages*), type † ♂ in Coll. Rothschild; BRAZIL. Upper Amazons, Fonte Boa, Codajas. *Exp.* 26 millim.

*1347 *d*. Ochrodota tessellata.

Ochrodota tessellata, Roths. A. M. N. H. (8) iv. p. 206 (1909); id. Nov. Zool. xvii. pl. 12. f. 2.

♂. Head and tegulæ white, the head with slight orange streak on vertex, the tegulæ with orange spot and rufous outer edge; palpi yellow, brown above; antennæ brown; thorax whitish suffused with brown except in front, the patagia with slight orange outer

edge; pectus and legs yellowish white, the legs banded with brown; abdomen pale yellow tinged with rufous, the terminal segments brown, the ventral surface yellowish white. Fore wing with the basal area pale yellow tessellated by three series of orange annuli and with blackish point on base of costa, subbasal point in cell and antemedial points on and below costa, bounded by an oblique rufous antemedial line defined at sides by blackish; the rest of wing grey tinged with brown, irrorated with dark brown and with faint pale striæ; traces of a discoidal lunule defined by black points: an indistinct dark postmedial line, angled outwards below costa, then oblique, a patch of pale yellow beyond it on costa broken up into spots by rufous striæ and defined by rufous, and with angled black mark at its lower extremity; a terminal series of slight black points with dark streaks from them intersecting the cilia. Hind wing pale yellow, the termen with some red-brown suffusion expanding just below apex and vein 2; the underside paler, the terminal part of costa tinged with red-brown; veins 4, 5 strongly stalked.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*). type † ♂ in Coll. Rothschild; Peru, R. Huacamayo, La Oroya. *Exp.* 26 millim.

1347. **Ochrodota pronapides.** insert (syn.):—

Ochrodota pronapides, pronapides major, Roths. Nov. Zool. xvii. p. 36 (1910).

*1347 *e*. **Ochrodota marina.** (Plate XLVIII. fig. 11.)

Ochrodota marina, Schaus, A. M. N. H. (8) vi. p. 403 (1910).

♂. Head white, the palpi and frons yellow and brown, the antennæ brown; thorax red-brown, the tegulæ white at base, the patagia with white patches; pectus and legs yellow, the fore legs red-brown with white band on 1st joint of tarsus, the mid tibiæ and tarsi banded with brown, the hind tibiæ with brown spot on outer side near base; abdomen orange-yellow, the ventral surface paler, a lateral series of black spots except towards base, and dorsal black spot on anal segment. Fore wing red-brown, the basal area from costa to vein 1, medial area from costa to median nervure, and a patch on apical part of costal area tessellated with white and yellowish spots defined by red-brown. Hind wing yellow; a terminal brown band, its inner edge angled inwards at veins 6 and 2 and narrowing to a point at vein 1.

Hab. Costa Rica, Sixola R. (*Schaus*). type † ♂ in U.S. Nat. Mus. *Exp.* 34 millim.

*1347 *f*. **Ochrodota similis.**

Ochrodota similis, Roths. A. M. N. H. (8) iv. p. 296 (1909); id. Nov. Zool. xvii. pl. 12. f. 1.

♂. Head and thorax red-brown; antennæ with the basal joint yellow in front; back of head with slight yellow spots, the tegulæ

with small yellow subdorsal spots at base; pectus and legs yellow, the fore tibiæ and tarsi brown banded with yellow; abdomen black-brown, yellow tinged with red-brown at base, the ventral surface yellow with some red-brown at sides. Fore wing red-brown with faint pale striæ; a basal patch formed of white points from costa to vein 1 and obliquely placed subbasal white points on and below costa; antemedial white spots on and below costa, two points in cell and two obliquely placed below the cell, followed by quadrate spots on costa and in cell; a small postmedial spot on costa, point above vein 7 and small spot below it; a subterminal white striga from costa and point above vein 7; cilia with a series of small yellowish spots. Hind wing yellow with apical patch of red-brown suffusion, subterminal maculate band, and some ill-defined spots on termen.

Hab. Brazil, Upper Amazons, Codajas (*Klages*), type † ♂ in Coll. Rothschild. Fonte Boa, Santo Antonio do Javary. *Exp.* 28 millim.

*1347 *g*. Ochrodota affinis.

Ochrodota affinis, Roths. A. M. N. H. (8) iv. p. 207 (1909); id. Nov. Zool. xvii. pl. 12. f. 4.

♀. Head and tegulæ grey-brown, the basal joint of antennæ white in front; thorax fuscous brown; pectus and legs brownish ochreous, the fore tibiæ and the tarsi darker with pale rings; abdomen fuscous brown, the ventral surface brownish ochreous. Fore wing dull reddish brown with numerous pale striæ; a slight fuscous spot at base of cell; a white point in upper part of middle of cell defined by brown; a slight fuscous discoidal striga; three or four obliquely placed whitish postmedial points from costa and three small subterminal spots; cilia with ochreous points except towards tornus. Hind wing reddish brown, the costal area ochreous white; the underside brownish white, the terminal area browner.

Hab. Brazil, Upper Amazons, Fonte Boa (*Klages*), type † ♀ in Coll. Rothschild, Iquitos, Teffé. *Exp.* 34 millim.

*1347 *h*. Ochrodota albescens.

Opharus albescens, Roths. A. M. N. H. (8) iv. p. 223 (1909); id. Nov. Zool. xviii. pl. 5. f. 16.

♀. Head and thorax pale ochreous faintly tinged with brown, the vertex of head, patagia at base and near tips, and prothorax with black points; palpi with black mark on 2nd joint and the 3rd joint black; fore tibiæ with black spot, the tarsi black except towards base, the mid tibiæ with black spot and the mid and hind tarsi black at extremities; abdomen yellow with lateral series of black striæ, the ventral surface with small blackish spots on terminal segments. Fore wing pale ochreous sparsely irrorated with small

blackish spots and striæ: more prominent antemedial spots below costa and above inner margin: two small discoidal spots and one just beyond the cell: an obscure postmedial series of striæ with more prominent spot below costa, excurved to vein 4, then incurved: a subterminal series of striæ with more prominent spot at discal fold, some small spots on termen towards apex. Hind wing ochreous white.

Hab. VENEZUELA, Caura R., La Vuelta (*Klages*), type ♀ in Coll. Rothschild. Maripa, La Union: SURINAM, Maroewyn R., Aroewarwar Creek. *Exp.* 52 millim.

*1349 *a*. Tessellarctia clagesi.

Ammalo klagesi, Roths. A. M. N. H. (8) iv. p. 205 (1909): id. Nov. Zool. xvii. pl. 12. f. 20.

♀. Head and thorax scarlet: palpi with the 3rd joint black below: antennæ black except basal joint: tibiæ and tarsi greyish brown: abdomen black, the anal tuft scarlet. Fore wing red-brown with slight pale irroration: some scarlet at base: the terminal area with a faint dark shade except at apex and tornus. Hind wing rather darker red-brown with slight scarlet marks at base. Underside of both wings with scarlet patches in and below cell.

Hab. BRAZIL, Amazons, Fonte Boa (*Klages*), type ♀ in Coll. Rothschild. *Exp.* 72 millim.

1351 *a*. Pachydota drucei. (Plate XLVIII. fig. 12.)

Pachydota drucei, Roths. Nov. Zool. xvi. p. 273 (1909).
Pachydota josphina, Schaus. A. M. N. H. (8) vi. p. 404 (1910).

Head and thorax deep chocolate-brown, the vertex of head and basal joint of antennæ creamy white: coxæ orange, the fore coxæ with brown patches: abdomen orange, the dorsum with large black patch clothed with brown hair from 2nd to penultimate segment, triangular in shape with its edges waved, the ventral surface brown. Fore wing deep chocolate-brown: a subbasal purple-grey shade: oblique antemedial and medial purple-grey bands, the latter broader: a purple-grey discoidal striga and incurved line from vein 3 to inner margin: a postmedial purple-grey band from costa to vein 3 where it is bent outwards and an oblique bar between veins 3 and 1: subterminal oblique bars from below costa to vein 6 and vein 6 to vein 3 where it touches the terminal band, which arises just below apex and does not reach tornus. Hind wing brown, the interspaces in, below and just beyond the cell slightly semihyaline: the underside greyish, the costal area, veins, and discoidal lunule browner.

Hab. MEXICO, Jalapa (*Trujillo*), 1 ♀. Godman-Salvin Coll.: COSTA RICA, Juan Vinas (*Schaus*), 1 ♂: PANAMA, Lino (*Fassl*), 1 ♂: COLOMBIA, type♀ ♂ in Coll. Rothschild. *Exp.* 58 millim.

*1352 *a*. Pachydota affinis. (Plate XLVIII. fig. 13.)

Pachydota affinis. Roths. Nov. Zool. xvi. p. 274 (1909).
Pachydota peruviana, palmeri ♀. Roths. Nov. Zool. xvii. p. 37 (1910), nec ♂.

♂. Head and thorax black-brown, the vertex of head pure white; coxæ orange-yellow; abdomen orange-yellow with black segmental lines, the hair at base orange-yellow followed by a dorsal patch of black hair, the ventral surface black-brown. Fore wing purple-grey with a leaden gloss; some dark brown at base of costa; broad oblique dark brown antemedial and medial bands, the former ending at vein 1; a broad discoidal bar confluent with a band from lower angle of cell to inner margin and both above and below with the postmedial band which beyond the lower angle of cell emits an obliquely curved fork to tornal part of termen; a wedge-shaped band with sinuous outer edge from costa towards apex to the fork of postmedial band at vein 3; a patch on apical part of costa with irregular line from it to termen at vein 4. Hind wing fuscous brown, the interspaces to beyond the cell paler and somewhat semi-hyaline; the underside grey tinged with brown, the costal area brown, the veins black.

♀. Fore wing with the terminal area brown from apex narrowing to a point at vein 4.

Hab. Colombia. Popayan (*Lehmann*), type ♂ in Coll. Rothschild. San Antonio (*Palmer*), type ♀ (*palmeri*), which is a ♂ in Coll. Rothschild; Venezuela. Merida (*Briceno*). *Exp.*, ♂ 58, ♀ 64 millim.

*1352 *b*. Pachydota ducasa. (Plate XLVIII. fig. 14.)

Pachydota ducasa. Schaus. Pr. U.S. Nat. Mus. xxix. p. 222 (1905).
Pachydota peruviana, palmeri ♂, Roths. Nov. Zool. xvii. p. 37 (1910).

♂. Head and thorax dark reddish brown, the vertex of head and basal joint of antennæ white; pectus orange-yellow near base of legs; abdomen dorsally orange-yellow with black-brown patch on 2nd, 3rd, and 4th segments and smaller black patch on 5th segment, the terminal segments and the other segments at sides with black lines, the extremity and ventral surface brown, the ventral valve yellowish. Fore wing pale grey-brown with dark brown bands; a diffused subbasal band from costa to below cell; an oblique antemedial band widening to costa; an oblique almost medial band; a broad discoidal bar with somewhat narrower oblique band from it to inner margin and with a narrower oblique band beyond it from above vein 2 to tornus; a curved band from costa beyond middle to termen at vein 2 emitting a spur to lower angle of cell; a band from costa towards apex to near termen above vein 3, its outer edge forming a hook at vein 7; a patch at apex with sinuous subterminal line from it to vein 4 expanding into a spot at vein 5. Hind wing brownish white; the veins brown; a slight

brown discoidal lunule; the apical and tornal areas suffused with brown and some brown on termen.

Hab. W. Colombia, San Antonio (*Palmer*), type † ♂ *palmeri* in Coll. Rothschild; Venezuela, Aroa, type † ♂ in U.S. Nat. Mus. *Exp.* 64 millim.

*1352 *c*. Pachydota peruviana. (Plate XLVIII. fig. 15.)

Pachydota peruviana, Roths. Nov. Zool. xvi. p. 274 (1909).

♂. Head and thorax black-brown, the vertex of head pure white; coxæ orange-yellow; abdomen orange-yellow with black segmental lines, the hair at base yellow followed by a large dorsal black patch, the ventral surface black-brown. Fore wing purple-grey; the basal area suffused with brown with oblique outer edge; an oblique medial brown band; a broad discoidal bar and oblique band from lower angle of cell to inner margin, the bar confluent above and below with the postmedial band which beyond lower angle of cell emits a fork to tornal part of termen; a band from costa towards apex to the fork of postmedial band at vein 3, narrowing below vein 6; a patch on apical part of costa. Hind wing semihyaline white, the veins brown; the termen brown expanding into diffused patches on apical part of costa and tornal area; the underside with the costal area brown.

♀. Abdomen with the extremity black-brown; fore wing with the terminal area brown from costa narrowing to a point at vein 3.

Hab. Peru, Carabaya, S. Domingo (*Ockenden*), type † ♂, ♀ in Coll. Rothschild, Tinguri, Oconeque, R. Inambari, La Oroya. *Exp.*, ♂ 52, ♀ 68 millim.

1353. Pachydota punctata.

Pachydota albiceps, Hmpsn. Cat. Lep. Phal. B. M. iii. p. 94 (nec Wlk.).
Pachydota punctata, Roths. Nov. Zool. xvi. p. 274 (1909).

Surinam, Maroewyn Valley, Aroewarwar Creek (*Klages*), type † ♂ in Coll. Rothschild.

1353 *a*. Pachydota albiceps. (Plate XLVIII. fig. 16.)

Eucerea albiceps, Wlk. vii. 1640 (1856).
Pachydota inermis. Schaus, A. M. N. H. (8) vi. p. 404 (1910).

♂. Head and thorax black-brown, the vertex of head and basal joint of antennæ behind white, the metathorax with some whitish scales; palpi with whitish point on 1st joint; fore coxæ orange; abdomen orange-yellow with large triangular black-brown dorsal patch on four basal segments, the extremity and ventral surface black-brown. Fore wing purple-grey, the basal area suffused with fuscous brown; an oblique fuscous brown antemedial band; a diffused fuscous brown discoidal bar; a diffused postmedial band, oblique from costa to vein 3, then bent inwards to the discoidal

bar and erect to inner margin; a narrow diffused subterminal band, oblique from costa to vein 3, then forming a patch on tornal area touching the angle of the postmedial band. Hind wing semihyaline whitish, the veins brown, the terminal area broadly suffused with brown; the underside with the costal area suffused with brown.

Hab. Costa Rica, Sixola R. (*Schaus*), 1 ♂. Tuis; Br. Guiana: Surinam; Brazil. *Exp.* 52 millim.

1353 *b*. Pachydota rosenbergi. (Plate XLVIII. fig. 17.)

Pachydota rosenbergi, Roth., A. M. N. H. (8) iv. p. 208 (1909).
Pachydota nitens, Schaus, A. M. N. H. (8) vi. p. 404 (1910).
Pachydota nitens ab. *roseitincta*, Schaus, A. M. N. H. (8) vi. p. 405 (1910).

♂. Head and thorax black-brown, the vertex of head and basal joint of antennæ white; coxæ orange; abdomen black-brown, lateral orange spots on 2nd and 3rd segments and subdorsal bars on the three following segments. Fore wing silky purple-grey; the basal area suffused with brown; an oblique brown antemedial band; a large brown discoidal patch with purple centre and oblique band from it to inner margin and incurved band from its outer edge to tornus; a patch on costal area towards apex with oblique bar from it to above vein 3; the apex suffused with brown. Hind wing black-brown, the lower part of cell and area below it semihyaline white on basal half.

♀. Abdomen with the last four segments dorsally orange with black segmental lines and dorsal spot on 4th segment and point on 5th segment; fore wing with the bands broader.

Ab. 1. *roseitincta* ♂. Abdomen with the dorsal black stripe broader, the orange markings reduced to five lateral spots; hind wing with the hyaline area broadly edged with pinkish on underside showing through to upper surface.

Hab. Costa Rica, Sitio (*Schaus*), 1 ♂, Juan Vinas (*Schaus*), 1 ♂, Tuis; Ecuador, Paramba (*Rosenberg*), type ♂ in Coll. Rothschild. *Exp.*, ♂ 46, ♀ 56 millim.

*1356 *a*. Carathis clagesi.

Carathis klagesi, Roths., A. M. N. H. (8) iv. p. 208 (1909); id. Nov. Zool. xvii. pl. 12. f. 7.

♂. Head and thorax creamy white, the vertex of thorax with a red-brown streak expanding into a triangular patch on prothorax; palpi and frons deep chocolate-brown; antennæ brown except towards base; shoulders with brown streaks; legs yellow banded with brown; abdomen creamy white with lateral series of black points. Fore wing yellowish white with a silvery gloss; a dark brown subbasal line forking at costa and ending at vein 1; the antemedial and medial areas with some rufous bars and streaks on inner area forming tessellate markings; an oblique chocolate-brown

streak from costa before middle along median nervure to the postmedial band, crossing the antemedial line which is oblique below the discal fold and emits a fork from costa to the streak on median nervure where it expands into a medial spot below the cell; a broad slightly curved chocolate-brown band from costa beyond middle to tornus, its outer edge excurved between veins 6 and 5, and enclosing a spot of the ground colour; the veins of terminal area with dark streaks; a double waved subterminal line from costa to vein 4 and a terminal series of spots defined by chocolate-brown from apex to below vein 4 where it is connected with the subterminal line, also by a chocolate spot between veins 6 and 5; the costa towards apex and cilia chocolate-brown. Hind wing creamy white with a slight brown discoidal striga; a pale brown maculate subterminal band from costa to submedian fold, incurved at discal fold, and a slight mark at vein 1.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type ♀ ♂ in Coll. Rothschild. *Exp.* 34 millim.

*1356 *b*. Carathis melamera. (Plate LXVI. fig. 3.)

Carathis melamera, Dogn. Hét. Nouv. Am. Sud, xi. p. 7 (1916).

♀. Head creamy white with a slight rufous streak on vertex, the antennæ, frons, and palpi dark brown; thorax chocolate-red with creamy white patches on tegulæ and prothorax and stripes on outer edge of patagia: abdomen orange with dorsal black bars on terminal half; femora orange, the tibiæ and tarsi creamy white, the latter banded with chocolate-brown; pectus and ventral surface of abdomen creamy white. Fore wing with the basal area silvery white, yellow at inner margin, its outer edge excurved to vein 1 with two small spots beyond it in the cell and retracted below vein 1; a subbasal spot defined by chocolate-brown on it at costa and two sinuous red antemedial striæ across submedian interspace: the medial and postmedial areas chocolate-red with semicircular medial silvery white patches at costa and inner margin, the former with small chocolate-brown spot at costa, then a double striga, the latter with double striga; the terminal area silvery white from just below costa to a point on termen at vein 2, its inner edge incurved, traversed by a waved chocolate line near its inner edge and double irregularly waved subterminal line: a quadrate chocolate-brown spot before termen between veins 6 and 5 and a waved chocolate-brown line defining white spots on termen. Hind wing orange-yellow, the terminal half fuscous brown except on costal area, its inner edge irregular and indented by yellow streaks below submedian fold and at inner margin; cilia pale yellow except towards tornus. Underside of fore wing with the basal area yellow, then paler and without the patch on inner margin; hind wing with a small rufous antemedial spot below costa, the terminal area paler brown and extending to costa.

Hab. Brazil. São Paulo, type ♀ in Coll. Dognin. *Exp.* 48 millim.

*1357 *a*. Carathis australis.

Carathis australis, Roths. A. M. N. H. (8) iv. p. 208 (1909); id. Nov. Zool. xvii. pl. 12. f. 8.

♂. Head and tegulæ yellow mixed with some brown; palpi chocolate-brown with small yellow spots at extremities of 1st and 2nd joints; antennæ brown; thorax chocolate-brown, the patagia yellow at tips; legs banded brown and yellow; abdomen ochreous dorsally tinged with brown. Fore wing chocolate-brown, the basal area tessellated with pale yellow spots defined by rufous, the outer edge of this area oblique from costa before middle to inner margin beyond middle; a medial patch of yellow spots defined by rufous on costa; the terminal area with wedge-shaped patch of pale yellow spots defined by rufous, broad at costa, narrowing to a point at vein 2; intersected by a dark streak at vein 5; cilia with yellowish white spots from apex to vein 2. Hind wing whitish almost wholly suffused and irrorated with cupreous brown, the cilia white with a dark line through them; the underside white thickly irrorated with brown, a slight dark discoidal lunule and curved postmedial line.

Hab. Brazil, S. Catherina, type † ♂ in Coll. Rothschild. *Exp.* 42 millim.

*1358 *a*. Carathis tabaconas.

Carathis tabaconas, Joicey, A. M. N. H. (8) xviii. p. 59, pl. 14. f. 14 (1916).

♂. Head pale yellow tinged with rufous and with some chocolate-brown on vertex; antennæ red-brown; palpi yellow at base, red-brown at tips; thorax chocolate-brown, the tegulæ at middle and patagia at tips with yellow patches tinged with rufous; pectus and legs crimson, the tibiæ and tarsi banded with black; abdomen black-brown, the sides and extremity crimson, the ventral surface yellow with ventral series of small brown spots. Fore wing chocolate-brown; the basal area pale yellow mixed with some orange, with the costal edge dark brown, a downcurved subbasal streak below costa and two subbasal lines from below costa to vein 1; a small round pale yellow spot in middle of cell, a similar spot edged with orange in its upper extremity and an orange bar below base of vein 2; a subterminal yellow patch between veins 8 and 6 with two dark brown points on it, its outer edge waved and with yellow spot beyond it at apex; some orange subterminal points above and below vein 4 with a rather lunulate pale yellow spot below vein 4 and a yellow point on the cilia at vein 1. Hind wing hyaline white; some pale yellow at base and some crimson hair on basal half of inner margin; the costa and termen narrowly dark brown; some brown suffusion at tornus. Underside of fore wing with the basal area orange with irregular outer edge angled outwards below costa, the spots in end of cell and on terminal area as above; hind wing with the costal area yellow towards base, then chocolate-brown with a small yellow spot above end of cell.

Hab. Peru, R. Tabaconas (*Pratt*), type † ♂ in Coll. Joicey. *Exp.* 36 millim.

*1359 *a*. Neozatrephes schausi.

Baritius schausi, Roths. A. M. N. H. (8) iv. p. 210 (1909); id. Nov. Zool. xvii. pl. 12. f. 34.

♀ Head and thorax yellow mixed with red-brown; tibiæ and tarsi banded with brown; abdomen yellow dorsally suffused with scarlet except at base and extremity. Fore wing yellow thickly irrorated and streaked with brown; oblique subbasal, antemedial and medial series of confluent round yellow spots centred with orange-scarlet; a series of four spots from costa across end of cell to above vein 2, with a more elongate spot in discal fold; a black discoidal striga; a postmedial series of similar spots, the spot in discal fold displaced inwards, very oblique below vein 3; subterminal spots from costa to vein 3, bent inwards at vein 6; a terminal series of small yellowish spots. Hind wing pale semihyaline yellow with a faint scarlet tinge.

Hab. Trinidad, Caparo (*Klages*), type † ♀ in Coll Rothschild. *Exp.* 44 millim.

1361 *a*. Dialeucias violascens. (Plate XLVIII. fig. 18.)

Dialeucias violascens, Schaus, Pr. U.S. Nat. Mus. xxix. p. 222 (1905).

♀. Head and thorax reddish brown; abdomen fuscous brown; base of palpi, pectus and ventral surface of abdomen ochreous whitish. Fore wing pale red-brown suffused with purplish; very faint traces of diffused ante- and postmedial lines, the former oblique, the latter incurved below vein 4.

Hab. Fr. Guiana. St. Laurent Maroni (*Schaus*), 1 ♀. *Exp.* 34 millim.

*1362 *a*. Syntarctia fasciata.

Syntarctia fasciata, Roths. A. M. N. H. (8) iv. p. 227 (1909); id. Nov. Zool. xviii. pl. 5. f. 4.

♂. Head and thorax pale ochreous mixed with brown; palpi with dark marks at side of 2nd and 3rd joints; pectus and hind legs whitish; abdomen ochreous tinged with brown, the base and ventral surface whitish. Fore wing pale ochreous, the basal costal area tinged with brown; faint double subbasal brown striæ from costa; an indistinct double oblique waved antemedial line with another double waved line just beyond it; a blackish discoidal lunule with the double waved medial line filled in with brownish just beyond it, obliquely incurved below vein 4; a double waved postmedial line filled in with brownish, angled inwards at discal fold and oblique below vein 4; a dentate subterminal line, its teeth conjoined to a dentate terminal line. Hind wing semihyaline ochreous white, the underside with the costal area tinged with ochreous.

Fore wing with veins 10, 11 sometimes stalked from the cell.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 28 millim.

*1362 *b*. **Syntarctia russa.** (Plate XLVIII. fig. 19.)

Syntarctia russus. Roths. A. M. N. H. (8) iv. p. 228 (1909).

Head and thorax ochreous tinged with reddish brown, the vertex of head with slight fuscous streak, the tegulæ and patagia with slight fuscous points; pectus paler; the extremities of the tibiæ and the tarsi with fuscous rings; abdomen pale ochreous dorsally tinged with reddish brown. Fore wing ochreous suffused with reddish brown; a subbasal black point on costa and slight obliquely placed fuscous spots on median nervure and above vein 1; a double oblique waved antemedial line with fuscous band beyond it; a double waved medial line; the discocellulars blackish, placed on a faint fuscous band which below the cell is narrow and incurved; postmedial line double, lunulate, incurved below vein 4; a subterminal band formed of dentate marks defined by fuscous, a black point on its outer edge at discal fold; a slight dentate line just before termen and terminal series of black points. Hind wing semihyaline whitish tinged with brown.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♀ in Coll. Rothschild, Santo Antonio do Javary, Codajas, Iquitos. *Exp.*, ♂ 32, ♀ 34 millim.

1362 will stand as **Syntarctia œnone,** Butl.

1362 *c*. **Syntarctia testacea.**

Halisidota testacea, Möschl. Verh. Zool.-bot. Ges. Wien, xxvii. p. 668, pl. 9. f. 32 (1877).

S. testacea Möschl. is distinct from *S. œnone* Butl., being a browner species with the paired lines of fore wing less dentate and filled in with slight dark suffusion so as to form obscure dark bands.

Both species are found in Surinam.

Hab. Surinam, Paramaribo, 1 ♂; Fr. Guiana, Cayenne, 1 ♂, R. de Kourou, 4 ♂, 6 ♀, St. Laurent Maroni, 3 ♀. *Exp.*, ♂ 30, ♀ 40 millim.

*1362 *d*. **Syntarctia uniformis.** (Plate XLVIII. fig. 20.)

Halisidota uniformis, Roths. Nov. Zool. xvii. p. 68 (1910).

♀. Head and thorax pale dirty brown; pectus pale ochreous; legs tinged with brown; abdomen yellowish white dorsally tinged with brown. Fore wing uniform pale ochreous brown. Hind wing semihyaline yellowish white.

Fore wing with veins 10, 11 stalked from the cell.

Hab. Br. Guiana, R. Demerara, type † ♀ in Coll Rothschild. *Exp.* 34 millim. This may be a variety of *S. testacea*.

1363 *a*. **Baritius acuminata,** Wlk. trans. from Cat. Lep. Phal. B. M. vol. i. p. 417.

Hind wing with vein 8 absent.

1364 *a*. Baritius hampsoni. (Plate XLIX. fig. 1.)

Mesolasia hampsoni, Dognin, Ann. Soc. Ent. Belg. xlvi. p. 228 (1902).
Baritius peculiaris, Roths. A. M. N. H. (8) iv. p. 225 (1909).

♂. Head, thorax, and abdomen black, the last with large sublateral yellowish white patches meeting ventrally, the last three segments scarlet with the anal tuft yellow. Fore wing hyaline, the veins and margins black, the terminal band expanding and with its inner edges rather waved towards apex. Hind wing hyaline, the veins and margins black, the narrow terminal band expanding into a patch at tornus.

Hab. Venezuela, Merida, 2 ♂, type † ♂ in Coll. Dognin; Peru, Carabaya, R. Huacamayo, La Union. *Exp.* 46 millim. Type † ♂ *peculiaris* in Coll. Rothschild.

1364 *b*. Baritius hæmorrhoides. (Plate XLIX. fig. 2.)

Baritius hæmorrhoides, Schaus, Pr. U.S. Nat. Mus. xxix. p. 223 (1905).

♂. Head, thorax, and abdomen black with a slight bluish tinge; abdomen with the last two segments scarlet, the anal tuft orange, the 1st segment with ventral fringe of orange hair. Fore wing purplish fuscous black with some diffused black at end of cell. Hind wing hyaline, the veins and margins black, the terminal band with irregular inner edges, expanding widely on apical area and towards tornus which is strongly lobed.

Hab. Fr. Guiana, Cayenne (*Schaus*), 1 ♂. *Exp.* 50 millim.

*1365 *a*. Baritius palmeri. (Plate LXV. fig. 11.)

Baritius palmeri, Roths. Nov. Zool. xxiii. p. 267 (1916).

♂. Head, thorax, and abdomen black-brown with a slight leaden grey gloss, the anal tuft yellow except at base; fore coxæ scarlet; a yellowish white patch at base of ventral surface of abdomen and small scarlet lateral spots on 2nd and 3rd segments. Fore wing dark leaden grey, the veins, discal fold in the cell, and submedian fold streaked with black; an oblique black-brown antemedial band and discoidal patch with oblique band from it to inner margin; an oblique diffused subterminal band from costa to vein 6, slight mark at vein 4 and diffused spot at vein 1; cilia dark brown. Hind wing hyaline, the veins black, the margins black-brown tinged with grey, the terminal band expanding at apex and towards tornus.

Hab. W. Colombia, San Antonio (*Palmer*), type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

1368 *a*. Baritius eleutheroides. (Plate XLIX. fig. 3.)

Baritius eleutheroides, Roths. A. M. N. H. (8) iv. p. 209 (1909).

Head and thorax ochreous yellow slightly mixed with red-brown, the vertex of head with slight brown streak, the tegulæ and patagia with slight brown spots; palpi yellow with brown patch at side of 2nd joint; pectus whitish; legs yellow, the tibiæ and tarsi banded

with brown; abdomen crimson; the anal tuft and ventral surface white. Fore wing yellow tinged in parts with red-brown and with yellow markings defined by red-brown; an indistinctly double brown subbasal line from costa to vein 1; some crimson on base of inner margin; an indistinctly double waved antemedial brown line, the outer line oblique below the cell, followed by minute brown annuli above and below vein 1; a patch on middle of costa and two spots in cell towards extremity; a maculate band from costa to inner margin across end of cell, oblique below the cell, the patch in submedian interspace angled inwards in submedian fold; a postmedial maculate band, interrupted between veins 4 and 3 by an oblique red-brown shade from costa just beyond the cell to termen above tornus; a subterminal series of lunulate spots from costa before apex to termen below vein 3, the spot in discal fold further from termen and with brown spot beyond it; cilia chequered brown and yellow. Hind wing crimson, the costal area and cell whitish; the underside whitish with the inner area tinged with crimson.

Hab. Fr. Guiana, St. Jean Maroni (*Schaus*), 1 ♂, St. Laurent Maroni, 1 ♂; Surinam, Aroewarwar Creek; Brazil, Amazons, Manaos, Fonte Boa (*Klages*), type † ♂, ♀ in Coll. Rothschild, Codajas; Ecuador, Paramba; Peru, Carabaya, La Union, La Oroya, Chanchamayo. *Exp.*, ♂ 30, ♀ 36 millim.

*1368 *b*. Baritius flavescens.

Baritius flavescens, Roths. A. M. N. H. (8) iv. p. 209 (1909); id. Nov. Zool. xvii. pl. 12. f. 32.

♂. Head and thorax pale yellow mixed with some brown; 2nd joint of palpi with brown spots at sides; vertex of head and tegulæ with slight brown points; tibiæ and tarsi with brown spots; abdomen yellow. Fore wing pale yellow; a subbasal brown spot on costa and line from it to vein 1; an antemedial brown spot on costa and oblique series of three whitish spots defined by brown and with brown line on their outer side; medial area with numerous whitish spots defined by brown, some brown on discocellulars and marks on costa above end of cell and middle of inner margin; a postmedial series of silvery white spots defined by brown, slightly bent inwards at vein 3 and with some brown striæ before and beyond them; a subterminal series of lunulate whitish spots defined by brown ending on termen on vein 2 with a small brown spot beyond it at discal fold, and a terminal series of triangular spots. Hind wing ochreous white.

Hab. Brazil, Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

The affinities are with *Baritius* though vein 8 of the hind wing is absent.

*1368 *c*. Baritius affinis. (Plate XLIX. fig. 4.)

Baritius affinis, Roths. Nov. Zool. xvii. p. 39 (1910).

♂. Head and thorax yellow slightly irrorated with brown; palpi with brown ring on 3rd joint; frons with brown bar, vertex of

head with brown streak; antennæ with some brown at middle and tips; tegulæ with brown points; patagia with brown points near base and at middle; dorsum of thorax with brown streak; pectus white; legs yellow, the tibiæ and tarsi with black rings; abdomen pale crimson, the anal tuft and ventral surface white. Fore wing yellow with numerous reticulate brown lines; a small subbasal brown spot on costa; an antemedial brown spot on costa and line excurved in cell, then oblique and with brown spot beyond it on vein 1; a small V-shaped mark at middle of costa; a diffused spot on costa above end of cell, triangular spot beyond lower angle of cell and quadrate spot on inner margin; subterminal brown spots on costa and at discal fold. Hind wing yellowish white, the inner area slightly tinged with crimson; the underside with slight brown marks on postmedial half of costa and subterminal spots above and below vein 6.

Hab. Brazil, Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 32 millim.

*1369 *a*. Tricypha rosenbergi. (Plate XLIX. fig. 5.)

Elysius rosenbergi. Roths. Nov. Zool. xvii. p. 44 (1910).

♀. Head pale yellow; palpi except at base and antennæ black-brown; thorax pale brown; coxæ pale yellow; abdomen fuscous brown, the sides and extremity yellowish, the ventral surface pale brown. Fore wing pale grey-brown; a faint brown antemedial band; a more distinct postmedial band, oblique below vein 4, and a rather diffused subterminal line incurved below vein 3. Hind wing grey-brown.

Hab. Ecuador, Paramba (*Rosenberg*), type † ♀ in Coll. Rothschild. *Exp.* 42 millim.

*1370 *a*. Tricypha nigrescens.

Tricypha nigrescens. Roths. Nov. Zool. xvi. p. 275 (1909). & xviii. pl. 5. f. 26.

♂. Head and thorax dark brown, the neck with yellow ring; palpi at base, pectus, and base of legs yellow; abdomen black with the hair on basal half of dorsum brown, the extremity and lateral stripes yellow, lateral series of small black spots, the ventral surface brown except at extremity. Fore wing dark reddish brown, the cell and area beyond it between veins 6 and 5 and a streak in submedian interspace from middle to near termen semihyaline; traces of interrupted antemedial, postmedial, and subterminal blackish shades. Hind wing blackish brown, the cell and area just below and beyond it semihyaline; the underside paler.

Hab. Paraguay, Sapucay (*Foster*), type † ♂ in Coll. Rothschild. *Exp.* 38 millim.

*1370 *b*. Tricypha pseudotricypha.

Elysius pseudotricypha, Roths. A. M. N. H. (8) iv. p. 227 (1909); id. Nov. Zool. xviii pl. 5. f. 3.

Fore wing of male normal.

♂. Head yellowish white; palpi and antennæ brown with the

basal joints orange-yellow; neck with orange-yellow ring; thorax red-brown; pectus orange-yellow; legs brown; abdomen black with patch of red-brown hair at base, the extremity and ventral surface orange-yellow, the latter with black-brown patch from near base to near extremity. Fore wing red-brown, with a greyish

Fig. 75.—*Tricypha pseudotricypha*, ♂. ½.

tinge; the base redder brown; an antemedial red-brown shade; a forked medial band enclosing a paler patch from costa to lower angle of cell; a rather diffused red-brown subterminal line arising below costa, angled inwards at discal fold, bent inwards at vein 3, then oblique to tornus. Hind wing dark reddish brown, the cilia pale at tips.

Hab. Br. Guiana, Demerara, Christianburg; Surinam, Maroewyn Valley, Aroewarwar Creek (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 36 millim.

1370 *c*. Tricypha ochrea. (Plate XLXIX. fig. 6.)

Micraga ochrea, Hmpsn. A. M. N. H. (7) viii. p. 174 (1901).

Brownish ochreous; neck orange, anal tuft yellow. Fore wing with the veins streaked with fuscous; dark points in middle of cell and on discocellulars connected by a slight streak in discal fold; an oblique diffused line from lower angle of cell to inner margin; an obliquely curved diffused postmedial line with dark streaks in the interspaces beyond it. Hind wing whitish thinly scaled, the terminal area suffused with fuscous brown.

Hab. Brazil, Rio Grande do Sul, 1 ♂, 1 ♀ type; Argentina, Iguazu Falls (*Betton*), 1 ♀. *Exp.* 30 millim.

*1370 *d*. Tricypha mathani. (Plate XLIX. fig. 7.)

Bituryx mathani, Roths. Nov. Zool. xvi. p. 291 (1909).

♂. Head, thorax, and abdomen pale reddish brown, the back of head yellowish; palpi yellowish at base; pectus and ventral surface of abdomen brownish white; legs fuscous brown. Fore wing pale grey-brown, the veins, discal fold in cell, and submedian fold fuscous brown; an oblique subapical shade from costa towards apex to vein 5 and a shade from vein 3 to submedian fold. Hind wing pale semihyaline brownish, the terminal area rather darker.

Hab. Colombia, Cundinamarcha, Cananche (*M. de Mathan*), type † ♂ in Coll. Rothschild, La Patma, Muzo. *Exp.* 26 millim.

1370 *e*. **Tricypha obscura**, Hmpsn. trans. from Cat. Lep. Phal. B. M. vol. i. p. 404.

and insert (syn.) :—

Bituryx hoffmansi, Roths. Nov. Zool. xvi. p. 291 (1909).

Hab. Brazil, Amazons, R. Madeira, Allianca (*Hoffmans*), type † ♂ in Coll. Rothschild.

*1370 *f*. **Tricypha proxima**. (Plate XLIX. fig. 8.)

Erithales proxima, Grote, Proc. Ent. Soc. Phil. vi. p. 320 (1867).

♂. Head and thorax brownish grey; neck with orange ring; abdomen orange except at base. Fore wing brownish grey sparsely irrorated with brown; a black discoidal point; a slight diffused postmedial shade almost obsolete except from vein 4 to inner margin, where it is oblique; a terminal series of black points. Hind wing fuscous grey, the cilia pale at tips.

Fore wing with vein 3 shortly stalked with 4, 5.

Hab. Cuba, in U.S. Nat. Mus. *Exp.* 30 millim.

1371. **Pelochyta nigrescens**, insert (syn.) :

Pelochyta fassli, Roths. Nov. Zool. xviii. p. 158 (1911).

Colombia, Rio Agua (*Fassl*), type † ♂ in Coll. Rothschild.

*1371 *a*. **Pelochyta hæmapleura**. (Plate XLIX. fig. 9.)

Pelochyta hæmapleura, Dogn. Hét. Nouv. Am. Sud, vii. p. 17 (1914).

♀. Head, thorax, and abdomen dark chocolate-brown, the back of head with pair of crimson spots, the metathorax with small crimson patch; neck with some crimson at sides; abdomen with lateral crimson fasciæ from before middle to extremity. Wings uniform chocolate-brown.

Hab. Colombia, Medina (*Fassl*), type † ♀ in Coll. Dognin. *Exp.* 36 millim.

*1371 *b*. **Pelochyta bicolor**. (Plate XLIX. fig. 10.)

Pelochyta bicolor, Roths. A. M. N. H. (8) iv. p. 225 (1909).

♂. Head and thorax red-brown; small crimson marks behind antennæ and a few hairs on metathorax behind; palpi black-brown with some crimson in front at base; abdomen red-brown, the four terminal segments crimson above. Wings uniform red-brown.

Hab. Peru, Carabaya, S. Domingo (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 42 millim.

1373 *a*. **Pelochyta misera.** (Plate XLIX. fig. 11.)

Pelochyta misera, Schaus, A. M. N. H. (8) vii. p. 184 (1911).

♂. Head orange-yellow; palpi with spot at side of 2nd joint and the 3rd joint black; a pair of black spots on frons and spots above frons and on vertex of head; antennæ brown with the basal joint black; thorax brown, the tegulæ at base and shoulders orange-yellow, the tegulæ, shoulders, and base of patagia with black spots; pectus and base of femora orange-yellow, the rest of legs brown; abdomen black with brown hair on basal half, the sides and ventral surface orange-yellow with lateral series of black spots. Fore wing dark red-brown; a small yellow patch at base with four black points on it. Hind wing fuscous brown, slightly paler at base.

Hab. Costa Rica, Guapiles (*Schaus*). 1 ♂. *Exp.* 40 millim.

*1374 *a*. **Pelochyta affinis.**

Pelochyta affinis, Roths. A. M. N. H. (8) iv. p. 210 (1909); id. Nov. Zool. xvii. pl. 12. f. 30.

♂. Head, tegulæ, and shoulders orange; thorax ochreous brown; palpi except basal joint and frons black-brown; antennæ brown; vertex of head, tegulæ, shoulders, and patagia with small black spots; pectus yellow; legs brown; abdomen yellow, brownish towards extremity, lateral series of black spots, the ventral surface with two large blackish patches on basal half and black bands on terminal segments. Fore wing ochreous brown; a small black spot at base and two subbasal spots below the cell; a faint brown discoidal shade; an indistinct rather diffused brown postmedial line, straight to vein 4, then bent inwards and ending at tornus. Hind wing greyish brown, the basal area and inner area to near tornus pale yellow.

Hab. Ecuador, Lita (*Flemming*), type † ♂ in Coll. Rothschild, Paramba. *Exp.* 52 millim.

*1374 *b*. **Pelochyta brunnescens.** (Plate XLIX. fig. 12.)

Pelochyta brunnescens, Roths. A. M. N. H. (8) iv. p. 226 (1909).

♂. Head and thorax red-brown; frons at sides and above, basal joint of antennæ, back of head, tegulæ at middle and sides and shoulders with black spots; palpi orange with black marks on 1st and 2nd joints; pectus and base of legs fulvous, the fore coxæ with black spots; abdomen black with red-brown hair on dorsum of basal segments, the anal tuft and ventral surface yellow, lateral, sublateral, and ventral series of black spots. Fore wing red-brown with two black points at base below costa. Hind wing red-

brown, the lower part of cell and area just below and beyond it slightly semihyaline.

Hab. Panama, Chiriqui; Venezuela, Merida; Ecuador, S. Javier; Peru, Carabaya, S. Domingo (*Ockenden*), type † ♂ in Coll. Rothschild, La Oroya, Oconeque, Pozuro. *Exp.* 48 millim.

1374 *c*. Pelochyta dorsicincta. (Plate XLIX. fig. 13.)

Pelochyta dorsicincta, Hampsn. Nov. Zool. xxiii. p. 232 (1916).
Opharus colombiana, Roths. Nov. Zool. xxiii. p. 268 (1916).

Head and thorax greyish brown, the frons with pair of black points and black point above, the vertex of head, basal joint of antennæ and tegulæ with black points, the patagia with three black points above shoulders; palpi with black patches at side of 2nd joint and the 3rd joint blackish; pectus and femora fulvous brown; abdomen ochreous yellow, the basal segments dorsally clothed with grey-brown hair, the terminal segments with black dorsal bands, lateral black spots on four terminal segments and a sublateral series, the ventral surface with black spots on 2nd and 3rd segments and bands on three following segments. Fore wing pale reddish brown, the veins and a streak in the cell fuscous; the termen and cilia rather darker brown. Hind wing rather paler reddish brown, the veins with darker streaks. Underside pale reddish brown.

Ab. 1. Head between antennæ and neck fulvous yellow.

Hab. W. Colombia, San Antonio (*Palmer*), 2 ♂ type. Cañon del Tolima (*Fassl*), type † ♀ *colombiana* in Coll. Rothschild. *Exp.* 46–56 millim.

*1374 *d*. Pelochyta suffusa.

Pelochyta suffusa, Joicey, A. M. N. H. (8) xviii. p. 60, pl. 14. f. 15 (1916).

♂. Head and thorax red-brown; some yellow round bases and on basal joint of antennæ; pectus yellowish; abdomen orange-yellow, dorsally suffused with red-brown becoming black-brown maculate bands towards extremity, the ventral surface red-brown. Fore wing red-brown; a broad greyish antemedial shade and oblique postmedial shade except towards costa; a narrower subterminal shade. Hind wing pale red-brown, paler at base and with the inner margin yellow. Underside of fore wing red-brown; hind wing red-brown with a dark brown discoidal bar with greyish suffusion before and beyond it, the inner area broadly yellowish.

Hab. Peru, Carabaya, Huancabamba (*Ockenden*), type † ♂ in Coll. Joicey. *Exp.* 44 millim.

*1375 *a*. Pelochyta atra.

Pelochyta atra, Roths. A. M. N. H. (8) iv. p. 226 (1909); id. Nov. Zool. xviii. pl. 5. ff. 2–24.

♂. Head and thorax dark greyish brown; palpi orange at base; frons with black bar, black spots between antennæ and on vertex

of head; tegulæ at middle and outer edge and base of patagia with black spots; pectus and base of legs orange-yellow, the fore coxæ with black spots, the rest of legs brown; abdomen black-brown, the ventral surface yellow with sublateral series of small black spots. Fore wing black-brown with four black points at base. Hind wing black-brown, slightly paler at base.

♀. Head, thorax, and basal half of abdomen reddish brown; palpi and frons yellowish, the former with black spots at sides of joints, the latter with pair of black spots; wings reddish brown.

Hab. Peru, R. Inambari, La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild, Carabaya, S. Domingo, Cuchi. *Exp.*, ♂ 38, ♀ 56 millim.

1375 *b*. **Pelochyta albipars.** (Plate XLIX. fig. 14.)

Pelochyta albipare, Hmpsn. Nov. Zool. xxiii. p. 232 (1916).

♀. Head, tegulæ, and base of patagia yellowish, the frons blackish brown, the vertex of head and tegulæ with black spots, the patagia with two black spots above shoulders; thorax and abdomen grey-brown; basal joint of palpi yellow at side; pectus yellow; fore coxæ yellow with brown patches; abdomen with the sides and ventral surface yellow, lateral series of blackish spots. Fore wing pale red-brown; black points at base of costa and median nervure; a small subbasal black spot below median nervure with a minute streak below it. Hind wing with the basal half yellowish white, the terminal half pale red-brown; the underside with the inner area yellowish white to near tornus.

Hab. Peru, 1 ♀ type. *Exp.* 52 millim.

1375 *c*. **Pelochyta pallida.** (Plate XLIX. fig. 15.)

Pelochyta pallida, Dogn. Hét. Nouv. Am. Sud. i. p. 9 (1910).

♂. Head, tegulæ, and patagia white; palpi tinged with brown, the 2nd joint with black mark at sides, the 3rd with black band at base; frons and vertex of head with black spots, tegulæ and patagia with two spots; antennæ brownish; thorax and abdomen white tinged with brown, the latter with lateral and sublateral series of black spots. Fore wing white tinged with brown, the veins somewhat browner; a very faint diffused brownish discoidal lunule. Hind wing white tinged with brown.

Hab. Colombia, Bogotá (*Vergara*), 1 ♂; Peru, Chanchamayo, type † ♂ in Coll. Dognin. *Exp.* 44 millim.

*1375 *d*. **Pelochyta albotestacea.**

Opharus albotestaceus, Roths. A. M. N. H. (8) iv. p. 223 (1909); id. Nov. Zool. xviii. pl. 5. fig. 23.

♀. Head and thorax ochreous white faintly tinged with brown, the vertex of head with minute blackish point, the patagia towards

tips and prothorax with paired black spots; palpi with brownish marks at sides of 1st and 2nd joints; tarsi blackish at extremities; abdomen yellow with lateral series of black spots. Fore wing creamy white; small subbasal brown spots below costa and cell and above inner margin; a small antemedial brown spot below costa and minute streak on subcostal nervure and in submedian fold; minute medial brown streaks on subcostal nervure and base of vein 2; two rather large blackish discoidal spots conjoined by a bar. Hind wing pale yellow, the veins and the termen towards apex and below vein 2 tinged with brown; the underside with some brown on costa towards apex.

Hab. Venezuela, Caura, R. Maripa (*Klages*), type† ♀ in Coll. Rothschild. *Exp.* 60 millim.

1376. Elysius dryas, insert :—

Elysius pseudodryas, Roths. A. M. N. H. (8) iv. p. 210 (1909).

A rather large form with some whitish irroration beyond the discoidal spot of fore wing.

Venezuela, Caura Valley (*Klages*), 1 ♀; Peru, Carabaya, R. Inambari, La Oroya (*Ockenden*), type† ♂ in Coll. Rothschild. *Exp.*, ♂ 56, ♀ 66 millim.

Elysius omissus, Roths. Nov. Zool. xvii. p. 41, pl. 13. f. 15; Joicey, A. M. N. H. (8) xviii. pl. 14. f. 16.

A large blackish form with broad dark terminal area to hind wing; the base of tegulæ, streaks below the wings, and marks on front of pectus and coxæ crimson.

Peru, Oxapampa, type† ♂ in Coll. Rothschild. *Exp.* 64 millim.

Sychesia dryas, tupus, Jordan, Nov. Zool. xxiii. p. 135 (1916).
Sychesia hora, Jordan, Nov. Zool. xxiii. p. 135 (1916).
Sychesia naias, Jordan, Nov. Zool. xxiii. p. 138 (1916).
Sychesia erubescens, Jordan, Nov. Zool. xxiii. p. 138 (1916).
Sychesia subtilis, megalobus, Jordan, Nov. Zool. xxiii. p. 141 (1916).
Sychesia dimidiata, Jordan, Nov. Zool. xxiii. p. 142 (1916).
Sychesia coccina, Jordan, Nov. Zool. xxiii. p. 144 (1916).

Forms described on differences in the genitalia only.

1377 *a*. Elysius flavicosta. (Plate XLIX. fig. 16.)

Ischnocampa flavicosta, Druce, A. M. N. H. (7) xv. p. 466 (1905).

♂. Head pale yellow; palpi, sides of frons, and antennæ dark brown; thorax red-brown; shoulders yellow; legs dark brown, coxæ yellow at extremities, tarsi ringed with yellow; abdomen dark brown, pinkish at base and with yellow lateral streaks at extremity, the ventral surface yellowish except anal segment. Fore wing pale red-brown with some darker suffusion, the costal area pale yellow to near apex; a faint pale reddish discoidal spot; the veins with slight reddish streak; the termen darker brown. Hind wing semi-

hyaline whitish, the inner area tinged with reddish, the apex and termen to vein 2 with brown.

Hab. PERU, S. Domingo, 1 ♂, type † in Coll. Joicey. *Exp.* 46 millim.

*1377 *b*. Elysius lavinia. (Plate XLIX. fig. 17.)

Elysius lavinia, Druce, A. M. N. H. (7) xviii. p. 82 (1906).

♂. Head, thorax, and abdomen black-brown, the tegulæ slightly edged with yellowish behind; shoulders with pale yellow patches; tarsi ringed with white. Fore wing black-brown with a broad pale yellow costal fascia narrowing to apex and with slight rufous streak on subcostal nervure; a narrow V-shaped yellow discoidal lunule; some yellow at base of inner margin. Hind wing yellowish white, the costal area suffused with brown; the terminal area suffused with brown narrowing to tornus and slightly diffused inwards to below end of cell; the underside with the costal area yellow to near apex and with some brown suffusion in upper part of cell.

Hab. PERU, Aqualani (*Ockenden*), type † ♂ in Coll. Joicey. *Exp.* 50 millim.

*1377 *c*. Elysius colombiana.

Halisidota colombiana, Roths. Nov. Zool. xviii. p. 158 (1911), & xix. pl. 5. f. 16.

♂. Head yellowish white tinged with rufous behind, the palpi, sides of frons, and antennæ black-brown; thorax rufous with darker dorsal stripe, the shoulders whitish; pectus whitish tinged with rufous; legs black-brown, the tarsi ringed with white; abdomen with some crimson at base followed by rufous, the terminal half dark brown, the ventral surface whitish. Fore wing pale rufous, the costa yellowish white; a slight dark streak in cell and discal fold to near termen. Hind wing semihyaline white, the costa rufous, the inner area tinged with rufous; cilia brown.

Hab. COLOMBIA, Monte Tolima (*Fassl*), type † ♂ in Coll. Rothschild. *Exp.* 52 millim.

*1377 *d*. Elysius sarcochroa. (Plate XLIX. fig. 18.)

Elysius sarcochroa, Dogn. Hét. Nouv. Am. Sud, vi. p. 4 (1912).

♂. Head yellowish white, the palpi and lower part of frons red-brown, the antennæ black; thorax red-brown, the tegulæ at base and shoulders white, the patagia with flesh-coloured stripes, the metathorax flesh-coloured at sides; pectus flesh-colour mixed with dark brown; coxæ white; legs dark brown, the tibiæ at extremities and the tarsi ringed with white; abdomen with the basal half flesh-coloured, the terminal half and sides dark red-brown, the ventral surface white except at extremity. Fore wing flesh-colour, the costal area yellow to near apex, the costal edge white; termen

tinged with red-brown; cilia red-brown. Hind wing semihyaline white, the inner area faintly tinged with flesh-colour; cilia red-brown; the underside with the costal area flesh-coloured.

Hab. Colombia, Monte Tolima (*Fassl*), type† ♂ in Coll. Dognin. *Exp.* 52 millim.

1378 *a*. **Elysius fuliginosa.** (Plate XLIX. fig. 19.)

Elysius fuliginosus, Roths. A. M. N. H. (8) iv. p. 227 (1909).

♂. Head and thorax black-brown; abdomen rather paler brown with blackish dorsal spot on subterminal segment. Fore wing fuscous brown, the veins black. Hind wing white slightly tinged with brown; the underside with the costa suffused with brown.

Hab. Peru, Carabaya, S. Domingo (*Ockenden*), type† ♂ in Coll. Rothschild, Huancabamba, R. Tanampaya, Oxapampa, El Porvenir, 2 ♂. *Exp.* 50 millim.

*1378 *b*. **Elysius hades.** (Plate XLIX. fig. 20.)

Hemihyalea hades, Druce, A. M. N. H. (7) xvii. p. 408 (1906).

♂. Head, thorax, and abdomen black-brown, the base of palpi and pectus in front with some yellow; extremity of abdomen bright yellow; wings uniform black-brown; hind wing with the tornus very slightly lobed.

Hab. Peru, Carabaya, type† ♂ in Coll. Joicey. *Exp.* 50 millim.

1379 *a*. **Elysius hampsoni.** (Plate XLIX. fig. 21.)

Elysius hampsoni, Dogn. Ann. Soc. Ent. Belg. li. p. 228 (1907).

♀. Head and thorax red-brown, palpi and frons black; antennæ blackish; tegulæ and patagia with black points; femora crimson above; tibiæ and tarsi tinged with fuscous; abdomen bright pink with dorsal black bands on four terminal segments and lateral bands on basal segments, the ventral surface pale red-brown. Fore wing pale brown-pink; subbasal black points in and below the cell; two antemedial red-brown bands, the basal narrowing and bent outwards to inner margin; an oblique postmedial band; a subterminal band ending at tornus emitting a fork at vein 5 to termen between veins 4 and 2; a terminal patch from apex to vein 5. Hind wing pale semihyaline brown, the termen pale reddish brown expanding at apex and tornus; the underside with the costal area reddish brown.

Hab. Peru, Carabaya, R. Inambari, 1 ♀, La Oroya, S. Domingo. *Exp.* 68 millim.

*1379 *b*. **Elysius meridionalis.** (Plate LXV. fig. 12.)

Elysius meridionalis. Roths. Nov. Zool. xxiv. p. 481 (1917).

♀. Head white tinged with rufous, the antennæ, frons, and palpi black; thorax pale rufous with black spots on tegulæ and

shoulders; abdomen flesh-pink, the three basal segments with subdorsal black spots, the 4th with subdorsal bars, the 5th and 6th with dorsal bands; pectus pale rufous; legs pale grey-brown, the fore coxæ flesh-white, crimson at sides and with black spots in front, the femora crimson above; ventral surface of abdomen pale rufous with lateral series of black spots and sublateral series of slight marks. Fore wing pale rufous, the basal area ochreous with a minute black spot at base of costa and obliquely curved series of three spots from subcostal nervure to base of inner margin; a whitish antemedial bar tinged with rufous from submedian fold to above inner margin, a narrow medial band slightly bent outwards to inner margin, similar postmedial band slightly bent inwards to costa, oblique subterminal band from below costa to above vein 4, and oblique bar between veins 1 and 2. Hind wing ochreous yellow, semihyaline except the veins and marginal areas.

Hab. Brazil. São Paulo, Bahuru, type † ♀ in Coll. Rothschild. *Exp.* 80 millim.

1380. **Elysius franci**, insert (syn.):—

Elysius francki, castrensis, Roths. Nov. Zool. xxiv. p. 481 (1917).

Brazil. Castro Paraña (*D. Jones*), type † ♀ in Coll. Rothschild.

*1381 *a*. **Elysius jonesi.** (Plate L. fig. 1.)

Elysius jonesi, Roths. Nov. Zool. xvii. p. 45 (1910).

♀. Head and thorax pale red-brown; palpi with some yellowish at extremity of 2nd joint in front, the lower part of frons yellowish; abdomen yellow with dorsal and lateral series of black spots, the ventral surface red-brown. Fore wing uniform pale red-brown. Hind wing whitish tinged with red-brown, the terminal area suffused with red-brown, narrowing to submedian fold, the underside with the costal area suffused with red-brown.

Hab. Brazil. São Paulo (*D. Jones*), type † ♀ in Coll. Rothschild. *Exp.* 54 millim.

*1381 *b*. **Elysius mediofasciata.**

Elysius mediofasciata, Joicey, A.M.N.H. (8) xviii. p. 60, pl. 14. f. 17 (1916).

♂. Head and thorax orange-scarlet mixed with red-brown; antennæ blackish; tibiæ and tarsi blackish; abdomen orange with large dorsal crimson patch on basal segments and lateral black bars except at base and extremity. Fore wing red-brown striated with orange and the veins dark brown; some pale scarlet at base of inner margin; an orange subbasal spot irrorated with red below base of costa and an antemedial patch below the cell, a small spot in cell towards extremity, a maculate postmedial band from costa

to above vein 1, incurved below vein 4, and a broad diffused terminal band narrowing to above vein 1. Hind wing orange-yellow, the costa and inner area suffused with crimson. Underside of fore wing crimson shading to orange at termen except towards tornus.

Hab. PERU, San Gaban, type † ♂ in Coll. Joicey. *Exp.* 60 millim.

*1382 *a*. Elysius ammaloides.

Elysius ammaloides, Roths. A. M. N. H. (8) iv. p. 211 (1909); id. Nov. Zool. xvii. pl. 12. f. 14.

♂. Head and tegulæ fulvous orange; palpi with the 3rd joint black; frons with pair of black points; antennæ brown, the basal joint with black spot above; tegulæ with black points; thorax red-brown, the patagia with orange patch with black point on it at base of outer edge; pectus and base of legs reddish orange, the tibiæ and tarsi fuscous brown; abdomen orange with black dorsal bands except at base where there is a faint crimson tinge. Fore wing fulvous orange almost entirely covered with diffused red-brown striæ; the terminal area rather deeper brown except at apex, with a slight orange spot before it above vein 6, and an indistinct erect bar ending on termen at vein 2. Hind wing orange-yellow faintly tinged with crimson, the costal edge brown. Underside of fore wing yellow, the costa brown, the terminal area thickly striated with red-brown; hind wing yellow, the costa and apical area suffused and mottled with red-brown.

Hab. BRAZIL, Amazons, Fonte Boa; PERU, R. Huemamayo (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 52 millim.

*1383 *a*. Elysius æschista. (Plate L. fig. 2.)

Elysius æschista. Dogn. Hét. Nouv. Am. Sud, iii. p. 10 (1911).

♀. Head and thorax dull reddish brown mixed with some whitish; palpi black-brown except basal joint; abdomen black-brown with ochreous yellow dorsal and lateral bands, the hair at base dull reddish brown. Fore wing pale dull reddish brown; a slight fuscous discoidal lunule; traces of a diffused fuscous subterminal band, angled outwards below veins 5 and 3. Hind wing pale ochreous brown; a faint discoidal spot.

Hab. COLOMBIA (*Fassl*), type † ♀ in Coll. Dognin. *Exp.* 64 millim.

*1383 *b*. Elysius intensa. (Plate L. fig. 3.)

Elysius phantasma, intensus, Roths. Nov. Zool. xvii. p. 45 (1910).

♂. Head white; palpi black-brown, the basal joint yellow with slight black streak; frons pale brown with black spot above; vertex of head with black point; antennæ brown; tegulæ black-brown with white spot; thorax pale brown, the metathorax

with black spot; pectus and coxæ yellow; legs grey-brown; abdomen brownish yellow with blackish segmental lines, the hair at base yellow, the ventral surface yellow. Fore wing pale brown with faint whitish discoidal spot. Hind wing whitish, the terminal half suffused with brown; the underside with the costal area tinged with brown.

Hab. Brazil, Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

*1383 *c*. **Elysius phantasma.** (Plate L. fig. 4.)

Elysius phantasma, Schaus, Pr. U.S. Nat. Mus. xxix. p. 223 (1905).

♂. Head and thorax brownish white; palpi and frons fuscous, antennæ brown; neck with orange ring; tegulæ and prothorax with fuscous patch; metathorax with fuscous spot; pectus orange, the legs greyish fuscous; abdomen orange. Fore wing brownish white, the terminal half suffused with purple, the base of inner area yellowish; a faint pale discoidal lunule. Hind wing brownish white, the inner area yellow.

Hab. Fr. Guiana, Maroni R., type † ♂ in Coll. Schaus. *Exp.* 38 millim.

*1384 *a*. **Elysius magnifica.**

Elysius magnifica, Roths. A.M.N.H. (8) iv. p. 211 (1909); id. Nov. Zool. xvii. pl. 12. f. 21.

♂. Head and thorax crimson mixed with dark brown; palpi crimson, the 3rd joint blackish; antennæ blackish; patagia and metathorax with blackish patches, the mesothorax with blackish band; pectus crimson, legs dark brown; abdomen black with yellow bands, the two basal segments and the terminal segment crimson, the ventral surface red-brown. Fore wing dark red-brown with rather numerous striated yellowish lines; crimson patches at base of costa and inner margin; a small yellow subbasal spot below the cell; an oblique diffused yellow and crimson band from below costa to submedian fold, pointed below, a patch in end of cell, two faint spots below end of cell and a faint postmedial patch from costa to above vein 4; some slight blackish suffusion in and beyond end of cell. Hind wing brilliant crimson. Underside of fore wing with crimson suffusion in and below the cell; hind wing pale rufous with some pale striæ on costa and the inner area crimson.

Hab. Peru, Tinguri (*Ockenden*), type † ♂ in Coll. Rothschild. La Oroya. *Exp.* 94 millim.

*1385 *a*. **Elysius conjuncta.** (Plate L. fig. 5.)

Elysius conjunctus, Roths. Nov. Zool. xvii. p. 43 (1910).

♂. Head and thorax crimson mixed with yellow; palpi crimson, brown at tips; antennæ brown; pectus and legs crimson, the tibiæ and tarsi brown; abdomen orange-yellow with black segmental

bands except at base and extremity, the hair on basal half of dorsum crimson, the ventral surface yellow tinged with crimson and with fuscous spot on 2nd segment. Fore wing yellow very thickly striated with crimson; a blackish streak with brown shade above it on inner margin except at base; the veins with slight dark streaks; an obliquely curved subbasal brown line from costa to vein 1; slight brownish marks on costa before middle and at origin of vein 2; a quadrate brownish discoidal patch and the area between veins 4, 3 brownish; faint postmedial and subterminal lines formed of brown striæ from below costa to vein 4; the terminal area on costal half and the postmedial and terminal areas on inner half brownish; cilia black-brown. Hind wing whitish faintly tinged with crimson, the inner area and termen more strongly tinged; the underside with the costal area tinged with crimson.

Hab. Venezuela, Caura, Maripan; Brazil, Sta. Catherina, type † ♂ in Coll. Rothschild. *Exp.* 60 millim.

1386 *a*. Elysius hermia.

Bombyx hermia, Cram. Pap. Exot. ii. pl. 185. f. F. (1779).

♂. Head and thorax fiery red mixed with some yellow; abdomen yellow dorsally suffused with crimson. Fore wing yellow almost completely covered with purple-brown striæ; a yellow basal patch suffused with scarlet; a yellow antemedial band suffused with scarlet, its inner edge indented in cell and submedian fold, its outer curved; a medial yellow patch irrorated with scarlet from costa to median nervure; a postmedial maculate band strongly incurved below angle of cell; a subterminal series of spots, those above veins 5 and 2 displaced inwards. Hind wing pale yellow suffused with crimson especially on termen.

Hab. Venezuela, Caura Valley (*Klages*), 2 ♂; Surinam; Brazil, 1 ♂. *Exp.* 52–54 millim.

1386. Elysius pyrosticta. (Plate L. fig. 6.)

Elysius hermia, Hmpsn. Cat. Lep. Phal. B.M. iii. p. 110 (1901) nec Cram.

Elysius pyrosticta, Hmpsn. A. M. N. H. (7) xv. p. 443 (1905).

Brazil, Rio Grand do Sul, 1 ♂, 1 ♀ type, Rio Janeiro, Tijuca (*Wagner*), 1 ♂.

*1389 *a*. Elysius subterra. (Plate LXV. fig. 13.)

Elysius subterra, Roths. Nov. Zool. xxiv. p. 481 (1917).

♂. Head, tegulæ, and shoulders deep orange; the last with three black points, the antennæ black, the palpi with black spots on 1st and 2nd joints and the 3rd joint black; thorax and abdomen glossy black, the latter with orange band at base, lateral orange stripes and the extremity orange except above; pectus and coxæ orange, the fore coxæ with black spots; legs black. Fore wing

black, the interspaces of discal area rather thinly scaled. Hind wing black, the lower part of cell, a fascia below the cell and the interspaces below bases of veins 5, 4, 3 bluish hyaline.

Hab. Peru, Cerro de Pasco, Huancabamba (*Boettger*), type † ♂ in Coll. Rothschild. *Exp.* 58 millim.

*1389 *b*. Elysius atrobrunnea. (Plate L. fig. 7.)

Elysius atrobrunnea, Roths. A. M. N. H. (8) iv. p. 211 (1909).

♂. Head and tegulæ orange-yellow; palpi black-brown; antennæ black-brown with a black line between their bases, a streak on vertex of head and band at middle of tegulæ; thorax black-brown, the pectus with orange fascia below the wings; the throat and coxæ orange; abdomen black-brown with orange band at base, narrow band on 6th segment and lateral fasciæ except on terminal segments. Fore wing uniform black-brown. Hind wing greyish brown, the lower part of cell and area just below it hyaline.

Hab. Venezuela, Merida (*Briceno*), type † ♂ in Coll. Rothschild. *Exp.* 68 millim.

*1389 *c*. Elysius felderi.

Elysius felderi, Roths. Nov. Zool. xvi. p. 275 (1909), & xviii. pl. 5. f. 27.

♂. Head, tegulæ, and base of patagia orange, the palpi with the 2nd joint, except at extremity, and the 3rd joint black, antennæ black, the tegulæ with black points at base, on outer edge and near tips, the shoulders with black bars; thorax black; pectus orange; legs black; abdomen orange with dorsal black patch on 2nd and 3rd segments followed by black segmental lines and a black patch on anal segment, the ventral surface black. Fore wing uniform black-brown. Hind wing black-brown, the lower part of cell and interspaces just below and beyond it hyaline.

Hab. Peru, Carabaya, Oconeque (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 54 millim.

*1389 *d*. Elysius terraoides. (Plate L. fig. 8.)

Elysius terraoides, Roths. Nov. Zool. xvi. p. 275 (1909).

♂. Head and tegulæ orange, the latter with black point at outer edge; palpi black with orange band at extremity of 2nd joint; antennæ black; thorax black; pectus orange, the fore coxæ with black patches, the legs black; abdomen black with orange bands on three subterminal segments and lateral bars on anal segments, the anal tuft orange at sides, orange lateral fasciæ on basal segments. Fore wing, black-brown with the veins black. Hind wing black-brown with the veins black; hyaline streaks in, below and just beyond lower part of cell.

Hab. Peru, Cerro de Pasco, Huancabamba (*Boettger*), type † ♂ in Coll. Rothschild; Bolivia, Charpulaya. *Exp.* 56 millim

*1389 *e*. Elysius terra. (Plate L. fig. 9.)

Elysius terra, Druce, A. M. N. H. (7) xviii. p. 82 (1906).

♂. Head, tegulæ, and base of patagia deep orange; 3rd joint of palpi and a patch on 2nd joint and the antennæ black, the latter with orange spot on basal joint in front; thorax black; pectus orange with a pair of black spots in front; legs black; abdomen black with lateral series of orange spots, the anal segment orange at sides and below. Fore wing black. Hind wing black with hyaline fasciæ in lower part of cell, below the cell and between bases of veins 5 to 2, and a slight streak in basal half of submedian fold.

Hab. Peru, Huancabamba (*Boettger*), type † ♂ in Coll. Joicey. *Exp.* 54 millim.

*1391 *a*. Elysius systron. (Plate L. fig. 10.)

Elysius systron, Schaus, Trans. Am. Ent. Soc. xxx. p. 137 (1904).

♂. Head and thorax dark brown; palpi with some yellow hair at extremity of 1st and 2nd joints; neck with yellow ring, the underside of tegulæ yellow; abdomen dark brown with dorsal orange bands except on basal segments. Fore wing dark brown, sparsely irrorated with a few pale scales: an antemedial whitish point in submedian fold and a small spot below base of vein 2, a postmedial point in discal fold and some subterminal points. Hind wing pale uniformly suffused with dark brown.

Hab. Brazil, Castro Paraña, type † ♂ in U.S. Nat. Mus. *Exp.* 18 millim.

*1392 *a*. Elysius tricyphoides.

Elysius tricyphoides, Roths. A. M. N. H. (8) iv. p. 227 (1909): id. Nov. Zool. xviii. pl. 5. f. 15.

♀. Head pure white; palpi black-brown, yellow at base, the lower part of frons, sides of head, and antennæ black-brown; neck with yellow ring; thorax brown; pectus in front and base of fore coxæ yellow; abdomen brown with lateral yellow stripes, series of small lateral black spots and the extremity yellow. Fore wing brown; a black discoidal spot; a fuscous subterminal line arising at vein 8, excurved below vein 7, incurved at discal fold, then waved. Hind wing greyish brown.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♀ in Coll. Rothschild; Peru, R. Inambari, La Oroya. *Exp.* 44 millim.

*1394 *a*. Elysius castanea.

Elysius castanea, Roths. A. M. N. H. (8) iv. p. 226 (1909); id. Nov. Zool. xviiii. pl. 5. f. 22.

♂. Head and thorax red-brown; palpi black-brown; throat with some orange hair; abdomen fuscous brown, the base yellow with a

patch of red-brown hair beyond it, lateral yellow stripes with black streaks below them, the extremity yellow. Fore wing red-brown; a discoidal patch of rather darker suffusion and a faint oblique shade from lower angle of cell to inner margin. A faint obliquely curved postmedial dark shade, interrupted at middle; the terminal area rather darker. Hind wing dull brown, the basal area pale ochreous; the underside with the inner area ochreous, a faint dark discoidal mark.

Hab. Peru, Carabaya, R. Huacamayo (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

*1394 *b*. Elysius barnesi. (Plate L. fig. 11.)

Elysius barnesi, Schaus, Trans. Am. Ent. Soc. xxx. p. 137 (1904).

♀. Yellowish white; abdomen dorsally suffused with orange except at base and extremity; wings uniform in colour.

Hab. Cuba, Matauzas, type † ♀ in U.S. Nat. Mus. *Exp.* 54 millim.

1395. Elysius melanoplaga, insert (syn.):—

Eucereon rabusculum Dogn. Le Nat. (2) xix. p. 10 (1905).

*1395 *a*. Elysius terranea.

Elysius terranea, Roths. A. M. N. H. (8) iv. p. 212 (1909); id. Nov. Zool. xvii. pl. 12. f. 23.

♂. Head, thorax, and abdomen dark reddish brown, the last with slight yellowish segmental line on 4th segment; coxæ yellowish; ventral surface of abdomen greyish brown. Fore wing dark reddish brown with rather numerous pale striæ; a small white discoidal spot. Hind wing yellowish white, the veins and terminal area tinged with red-brown; the underside with the costal area reddish brown.

Hab. Peru, La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 58 millim.

1396 *a*. Elysius deceptura. (Plate L. fig. 12).

Ischnocampa deceptura, Druce, A. M. N. H. (7) xv. p. 466 (1905).

♂. Head and thorax red-brown; abdomen brownish white at base, fuscous brown at middle and yellowish at extremity, the ventral surface fuscous brown. Fore wing pale red-brown irrorated with fuscous. Hind wing semihyaline ochreous white.

Hab. S.E. Peru, S. Domingo (*Ockenden*). 1 ♂, type † ♂ in Coll. Joicey. *Exp.* 42 millim.

*1396 *b*. **Elysius insula.** (Plate L. fig. 13.)

Elysius insula, Dogn. Ann. Soc. Ent. Belg. xlvi. p. 232 (1902).

♀. Head and thorax yellow-brown; abdomen brownish grey tinged with fuscous towards extremity, the anal tuft yellowish. Fore wing pale yellowish brown, the veins slightly darker. Hind wing uniform pale fuscous brown.

Hab. Ecuador, Loja, type † ♀ in Coll. Dognin. *Exp.* 54 millim.

*1399 *a*. **Ischnocampa lithosioides.** (Plate L. fig. 14.)

Eucereon lithosioides, Roths. Nov. Zool. xix. p. 176 (1912) ♂.

♂. Head and thorax pale red-brown, the back of head and dorsum of tegulæ and thorax suffused with fuscous; antennæ with the branches fuscous; palpi darker brown, the 1st joint pale in front, the 2nd and 3rd joints at extremities; pectus and legs darker red-brown, the tarsi with pale rings; abdomen fuscous brown, the sides towards extremity and anal tuft ochreous brown, the ventral surface ochreous white. Fore wing ochreous brown suffused and irrorated with red-brown except on terminal area; a dark point below costa near base; faint antemedial dark points on costa, median nervure, submedian fold, and vein 1; slight dark marks on and below middle of costa and in middle of cell; a black discoidal point; a dark mark on costa beyond middle and indistinct diffused red-brown postmedial line, oblique below vein 4; an indistinct diffused red-brown subterminal shade, excurved below vein 7 where it is met by a slight dark streak from apex; a terminal series of dark points and spot just before termen in submedian interspace. Hind wing pale red-brown, the cilia ochreous; the underside ochreous white, the costal and terminal areas suffused with red-brown; a red-brown mark on upper discocellular.

Hab. Brazil, Rio Janeiro, type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

*1399 *b*. **Ischnocampa admeta,** n. n. (Plate L. fig. 15.)

Eucereon lithosioides, Roths. Nov. Zool. xix. p. 176 (1912) ♀ (nec ♂).

♀. Head and thorax pale red-brown mixed with some ochreous; antennæ darker brown; palpi at base and coxæ ochreous white; legs darker brown, the tibiæ at extremities and tarsi ringed with ochreous white; abdomen fuscous brown, the base and extremity reddish brown, lateral series of small black spots, the ventral surface ochreous white tinged with red-brown. Fore wing ochreous white suffused with pale red-brown; the veins and interspaces of terminal half with darker streaks; a subbasal blackish point in the cell; antemedial line rather diffused red-brown, excurved below costa and incurved in submedian interspace; two black discoidal points: a

diffused dark brown medial line, angled inwards in upper part of cell and incurved below the cell; subterminal line ochreous white with short blackish streaks before and beyond it above and below vein 7, excurved below vein 7; a terminal series of slight dark points. Hind wing reddish brown, the costa ochreous white.

Hab. Venezuela, Caura R., La Union (*Klages*), type † ♀ in Coll. Rothschild. *Exp.* 34 millim.

1400 *a*. **Ischnocampa hemihyala**. (Plate L. fig. 16.)

Ischnocampa hemihyala, Hmpsn. A. M. N. H. (8) iv. p. 358 (1909).
Ischnocampa tolimensis, Roths. Nov. Zool. xxiii. p. 267 (1916).

♂. Head and thorax yellow-brown mixed with some whitish; palpi with the 2nd and 3rd joints black with pale tips; vertex of head and thorax with black stripe; patagia with blackish streak near upper edge; abdomen fuscous brown, the ventral surface yellow-brown. Fore wing with the marginal areas yellowish mixed with whitish and irrorated and striated with yellow-brown, the rest of wing hyaline irrorated with a few dark scales, the veins brownish; black points in cell near base, at middle and on discocellulars; small postmedial black spots on costa and inner margin and a series of slight streaks on the veins; a subterminal blackish shade from costa and a series of minute black streaks on termen in the interspaces. Hind wing hyaline; a black discoidal point; the apex and cilia tinged with ochreous brown.

Hab. Colombia, Monte Tolima (*Fassl*), type † ♂ *tolimensis* in Coll. Rothschild; Peru, Oconeque (*Ockenden*), 1 ♂ type. *Exp.* 38 millim.

1401 *a*. **Ischnocampa discopuncta**. (Plate L. fig. 17.)

Scepsis discopuncta, Hmpsn. A. M. N. H. (7) viii. p. 175 (1901).
Ischnocampa tovia, Dogn. Ann. Soc. Ent. Belg. xlviii. p. 115 (1904).
Ischnocampa barbata, Druce, A. M. N. H. (7) xv. p. 466 (1905).

Pale ochreous irrorated with black-brown; vertex of head with black streak; neck with orange ring; outer edge of patagia and vertex of thorax with blackish streaks: abdomen dorsally blackish except at extremity. Fore wing with black streak in base of cell; an oblique antemedial stigma above vein 1 continued as a slight streak above submedian fold; a point in middle of cell with slight streak from it to discocellulars above discal fold; points in angles of cell, a point beyond upper angle and three beyond lower angle; obscure postmedial and subterminal series of points conjoined into streaks towards apex. Hind wing semihyaline, the terminal area tinged with brown from apex to vein 1.

Hab. Bolivia, Chaco (*Garlepp*), 1 ♀ type; Peru, S. Domingo (*Ockenden*), 1 ♂, 2 ♀, type † *barbata* in Coll. Joicey. *Exp.* 48 millim. Type † *tovia* in Coll. Dognin.

*1402 *a*. **Ischnocampa floccosa.** (Plate L. fig. 18.)

Ischnocampa floccosa, Roths. A. M. N. H. (8) iv. p. 212 (1909).

♂. Head and thorax grey mixed with brown and irrorated with a few black scales, the vertex of head, tegulæ, and dorsum of thorax with black streak; palpi with the 2nd joint black at sides: abdomen grey mixed with brown and dorsally suffused with black except at base, the anal tuft pale grey, lateral series of black striæ. Fore wing grey tinged with brown and irrorated and striated with dark brown; a black discoidal point, a rather diffused black spot on costa just beyond the cell with an oblique brown shade from it to vein 4 where it is angled outwards, then obliquely incurved to middle of inner margin; a whitish subterminal shade defined on inner side by diffused fuscous brown, broad towards costa and inner margin; a blackish spot at apex and obscure terminal series of points. Hind wing semihyaline white, the termen suffused with brown, narrowing to tornus, the costal area irrorated with brown towards apex; the underside with the costal area and terminal area to submedian fold irrorated and striated with brown.

Hab. Peru, R. Inambari, La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild, S. Domingo. *Exp.* 42 millim.

1402 *b*. **Ischnocampa perirrorata.** (Plate LI. fig. 1.)

Philoros perirrorata, Hmpsn. A. M. N. H. (7) viii. p. 176 (1901).

♀. Ochreous, thickly irrorated with black; abdomen dorsally suffused with black except at extremity. Fore wing very thickly and evenly speckled with brown. Hind wing semihyaline except towards termen; the terminal area ochreous irrorated and clouded with fuscous.

Hab. Bolivia, Chaco (*Garlepp*), 1 ♀ type. *Exp.* 46 millim.

*1402 *c*. **Ischnocampa ignava.** (Plate LI. fig. 2.)

Ischnocampa ignava, Dogn. Mém. Soc. Ent. Belg. xix. p. 129 (1912).

♀. Head, thorax, and abdomen ochreous irrorated with brown; palpi blackish except at base; frons blackish at sides; prothorax with black streak; abdomen dorsally suffused with black except at base and extremity and with lateral series of small black spots. Fore wing ochreous irrorated with brown; a diffused brownish postmedial line, somewhat oblique to vein 5, then inwardly oblique; a diffused brown subterminal shade, angled inwards at discal fold. Hind wing semihyaline whitish, a blackish discoidal point, the terminal area suffused with ochreous and irrorated with brown; the underside with the costal and inner areas suffused with ochreous and irrorated with brown.

Ab. 1. Fore wing less strongly irrorated with brown, a small black discoidal spot, the postmedial line with slight dark streaks on the veins below vein 4 and more prominent spot at inner margin, the subterminal shade blackish towards costa.

Hab. Colombia, Quindin, Tochesito, type † ♀ in Coll. Dognin. *Exp.* 52 millim.

*1402 *d*. Ischnocampa sordidior. (Plate LI. fig. 3.)

Ischnocampa sordidior, Roths. A. M. N. H. (8) iv. p. 220 (1909).

♂. Head white mixed with some brown, the vertex of head with black streak; antennæ with the branches brown; neck with some orange; thorax brown mixed with ochreous white; abdomen dark brown, the anal tuft and ventral surface ochreous mixed with brown. Fore wing red-brown irrorated with black; a blackish spot at middle of inner margin; a black discoidal point; a brown subterminal shade from costa to vein 3 with a pale shade beyond it. Hind wing hyaline tinged with brown, the veins, costal area, and termen brown, the last emitting a streak inwards below vein 2: the underside with the costal and inner areas and termen striated with brown.

Hab. Peru, Carabaya, R. Inambari, La Oroya (*Ockenden*), type† ♂ in Coll. Rothschild, Oconeque, Caura, La Union, S. Domingo. *Exp.* 40 millim.

*1402 *e*. Ischnocampa griseola.

Ischnocampa griseola, Roths. A. M. N. H. (8) iv. p. 228 (1909); id. Nov. Zool. xviii. pl. 5. f. 5.

♀. Head and thorax grey-brown, the vertex of head yellowish; antennæ black-brown; abdomen fuscous brown. Fore wing grey thickly irrorated with dark brown; a minute brown discoidal spot; a diffused brown postmedial line, arising below costa, excurved to vein 3, then incurved; cilia brown. Hind wing greyish brown, the lower part of cell and area just below it slightly semihyaline.

Hab. Jamaica, Newcastle, type † ♀ in Coll. Rothschild. *Exp.* 34 millim.

*1402 *f*. Ischnocampa albiceps. (Plate LI. fig. 4.)

Ischnocampa albiceps, Dogn. Hét. Nouv. Am. Sud, iii. p. 10 (1911).

♂. Head and thorax red-brown, the vertex of head and a patch on metathorax pure white; abdomen rather pale red-brown. Fore wing red-brown thickly irrorated and striated with dark brown. Hind wing brownish white, the costal area, the area beyond the cell, and the termen to submedian fold suffused and irrorated with brown.

Hab. Colombia (*Fassl*), type † ♂ in Coll. Dognin. *Exp.* 42 millim.

*1403 *a*. Ischnocampa ferrea. (Plate LI. fig. 5.)

Ischnocampa ferrea, Dogn. Hét. Nouv. Am. Sud, vii. p. 18 (1914).

♂. Head and thorax red-brown, the antennæ black-brown; abdomen paler red-brown. Fore wing pale red-brown and thinly scaled, the veins darker. Hind wing semihyaline white, the veins and cilia pale red-brown, the costal area tinged with red-brown.

Hab. Colombia, Cordoba, Pacho (*Fassl*), type † ♂ in Coll. Dognin. *Exp.* 46 millim.

*1403 *b*. **Ischnocampa remissa.** (Plate LI. fig. 6.)

Sciopsyche remissa, Dogn. Ann. Soc. Ent. Belg. xlvi. p. 229 (1902).

♀. Head, thorax, and abdomen white suffused with pale brown; vertex of head white with some yellow hair behind. Fore wing white slightly irrorated with brown, the veins, costa, inner and terminal areas suffused with brown; slight brown streaks in cell and submedian fold, a diffused brown band from costa to lower angle of cell; dentate brownish marks above middle of veins 6, 5; a subterminal series of slight dentate brown marks becoming very oblique and diffused below vein 3. Hind wing semihyaline white with brown suffusion on apical area and medial part of terminal area.

Hab. Venezuela, Merida, type † ♀ in Coll. Dognin. *Exp.* 32 millim.

1403 *c*. **Ischnocampa uniformis**, trans. from *Trichodesma*, Cat. Lep. Phal. B. M. vol. i. p. 453.

*1403 *d*. **Ischnocampa achrosis.** (Plate LI. fig. 7.)

Ischnocampa achrosis. Dogn. Hét. Nouv. Am. Sud. vi. p. 4 (1912).

♂. Head and thorax pale ochreous yellow; antennæ with the branches tinged with fuscous; abdomen whitish tinged with ochreous, the ventral surface ochreous. Fore wing pale ochreous yellow: a minute brown spot at lower angle of cell; a faint brownish subterminal shade, bent inwards below vein 2. Hind wing ochreous white.

Hab. Ecuador, Loja, type † ♂ in Coll. Dognin. *Exp.* 40 millim.

1403 *e*. **Ischnocampa obscurata.** (Plate LI. fig. 21.)

Philoros obscurata, Hmpsn. A. M. N. H. (7) viii. p. 176 (1901).

Pale ochreous irrorated with brown; abdomen dorsally brown. Fore wing with black point in lower angle of cell; an obscure diffused brown band very acutely angled beyond lower angle of cell and oblique towards costa and inner margin; an oblique inwardly diffused brown patch from costa before apex. Hind wing semihyaline towards base.

Hab. Colombia. 1 ♀ type; Peru, Huancabamba, Cerro del Pasco, 1 ♂. *Exp.*, ♂ 36, ♀ 40 millim.

1404 *a*. **Ischnocampa styx.**

Ischnocampa styx, D. Jones, Trans. Ent. Soc. 1914, p. 11, pl. 1. f. 15.

♂. Head, thorax, and abdomen reddish brown mixed with some greyish. Fore wing reddish brown slightly irrorated with greyish, the veins rather darker. Hind wing reddish brown with the cell and area just below it somewhat semihyaline.

Hab. Trinidad, 1 ♂: S. Brazil, Santos, Alto da Serra (*D. Jones*), type † ♂ in Coll. D. Jones. *Exp.* 50 millim.

1407 *a*. **Opharus roseistriga.** (Plate LI. fig. 8.)

Opharus roseistriga, Schaus, A. M. N. H. (8) vi. p. 405 (1910).

♂. Head yellowish white; palpi brown with white ring at extremity of 2nd joint; frons and antennæ brown; tegulæ pink with some brown at tips; thorax pale brown with pink patch on metathorax; pectus and legs dark brown, the tarsi with pale rings; abdomen dark brown with lateral pink stripes, the extremity pink, the anal tuft whitish. Fore wing dark olive-brown, the costal area pale olive-brown. Hind wing olive-brown with the cell and area below and beyond it somewhat semihyaline.

Hab. Costa Rica, Juan Vinas (*Schaus*), 1 ♂. *Exp.* 44 millim.

*1410 *a*. **Opharus albijuncta.** (Plate LXV. fig. 14.)

Opharus albijuncta, Roths. Nov. Zool. xxiii. p. 267 (1916).

♂. Head, thorax, and abdomen grey-brown, the vertex of head and a patch on metathorax white, the abdomen with subdorsal yellow patches on terminal half. Fore wing uniform pale reddish brown thickly irrorated with dark brown. Hind wing pale grey-brown irrorated with darker brown, the cell and area just below it semihyaline.

Hab. Colombia, Monte Tolima (*Fassl*), type † ♂ in Coll. Rothschild. *Exp.* 52 millim.

1412. **Opharus bimaculata**, insert:

Subsp. *major*, Roths. Nov. Zool. xvii. p. 17 (1910).

♀. Larger and darker; hind wing more uniformly tinged with brown.

Hab. Venezuela, Caracas, type † ♀ in Coll. Rothschild. *Exp.* 56 millim.

*1415 *a*. **Opharus brunneitincta.** (Plate LI. fig. 9.)

Ischnacampa brunneitincta, Roths. Nov. Zool. xvi. p. 275 (1909).

♂. Head and thorax reddish brown; palpi, frons, and antennæ blackish brown; abdomen grey-brown. Fore wing reddish brown, thinly scaled, the veins darker, the terminal area with faint brown striæ. Hind wing semihyaline whitish, the costal area and termen to vein 2 tinged with brown.

Hab. Peru, Carabaya, Oconeque, (*Ockenden*), type † ♂ in Coll. Rothschild, S. Domingo, Huanuco, Cushi. *Exp.* 44 millim.

1421. **Opharus piperita**, insert (syn.):—

Opharus aureopuna, Roths. Nov. Zool. xxiii. p. 268 (1916).

Colombia, Monte Tolima (*Fassl*), type † ♂ in Coll. Rothschild.

*1421 *a*. Opharus intermedia. (Plate LI. fig. 10.)

Opharus intermedia, Roths. Nov. Zool. xvi, p. 276 (1909).

♀. Head and thorax dark brown, a large pale yellow patch between antennæ and two spots at sides of back of head; palpi with some crimson hair at base; tegulæ with yellow dorsal mark, the patagia with curved yellow fascia; coxæ crimson; mid and hind femora and mid tibiæ with yellow spots; abdomen brown with crimson lateral patches becoming subdorsal on 5th and 6th segments, the 7th segment with minute dorsal spot and the anal segment with large patch, sublateral series of yellow spots except on basal segment on which there are subventral patches. Fore wing dark brown; two minute yellow spots in base of cell; a subbasal spot on costa with three minute obliquely placed spots beyond it in and below the cell; an antemedial series of five spots, the spot in cell small; a medial spot on costa, two minute spots on discocellulars, three between lower angle of cell and vein 1 and two beyond the cell above and below vein 6; a small postmedial spot on costa and a series of points, oblique below vein 4; a subterminal series of spots, the spot on costa small and those below veins 4 and 3 minute, the spot in discal fold further from termen; a terminal series of minute spots. Hind wing brown; two small elongate pale yellow spots in end of cell, a spot in discal fold beyond the cell, minute elongate spots below veins 5 and 4, a short streak below vein 3 and two spots below vein 2, the lower minute; two subterminal points below apex and a series on the cilia; the underside with yellowish white patch on basal costal area.

Hab. Ignotus. Type † ♀ in Coll. Rothschild. *Exp.* 60 millim.

1423 *a*. Opharus decrepida.

Phegoptera decrepida, Herr.-Schäff. Aussereur. Schmett. f. 287 (1855).

♂. Head and thorax yellowish, the vertex of thorax tinged with brown; vertex of head, tegulæ and patagia with blackish patches; palpi banded with black; pectus and legs suffused with brown; abdomen yellow dorsally clothed with brown hair except towards extremity, which has brownish segmental bands and lateral black spots, the ventral surface with two black-brown patches. Fore wing ochreous brown suffused and streaked with dark brown; a yellow subbasal striga from costa and spot below the cell; a curved irregularly dentate yellow antemedial line from costa to vein 1, slight black streaks beyond it in discal and submedian folds, a yellow discoidal mark traversed by a short streak forming a somewhat trident-like mark and with spot above it on costa; an irregularly dentate yellow postmedial line from costa to vein 4 followed by an oblique series of small spots and elongate dentate mark in submedian fold; a waved yellow subterminal line from costa to vein 4 followed by a series of small spots and V-shaped mark in submedian fold; a terminal series of paired yellow points

connected with bars on the cilia. Hind wing greyish ochreous suffused with pale brown, the terminal area rather darker except towards tornus and with sinuous subterminal series of small yellow spots ending on termen at vein 2; the underside pale yellow with brown terminal band from apex to vein 1, its inner edge angled inwards at discal fold and incurved at submedian fold, two small dark discoidal spots.

♀ slightly paler.

Hab. Venezuela, type † in Mus. Berlin; S.E. Peru, Agualani (*Ockenden*), 1 ♂, Oconeque (*Ockenden*), 1 ♀; Bolivia, R. Suapi (*Garlepp*), 1 ♀. *Exp.*, ♂ 50, ♀ 56 millim.

1423. Opharus hampsoni. (Plate LI. fig. 11.)

Opharus decrepida, Hmpsn. Cat. Lep. Phal. B.M. iii. p. 123 (nec Herr-Schäff.).

Opharus hampsoni, Roths. Nov. Zool. xvi. p. 276 (1909).

1423 *b*. Opharus discisema. (Plate LI. figs. 12 ♂ & 13 ♀.)

Opharus discisema, Hmpsn. Nov. Zool. xxiii. p. 233 (1916).

Opharus irregularis, Roths. Nov. Zool. xxiii. p. 268 (1916).

♂. Head and thorax greyish ochreous mixed with red-brown, the vertex of head with slight dark brown streak, the patagia with more red-brown at base and slight dark brown streaks towards extremities; antennæ red-brown, dark brown at base; palpi black-brown, the 1st and 2nd joints ochreous in front and at extremity; pectus and legs ochreous mixed with red-brown; abdomen yellow, the basal half dorsally clothed with red-brown hair, the terminal segments with small dorsal black spots, the ventral surface with red-brown mixed. Fore wing ochreous tinged with red-brown and striated and in parts suffused with red-brown; the base greyish with dark brown points at base of costa and vein 1, its outer edge angled at median nervure and defined by dark brown to submedian fold, a narrow maculate grey antemedial band defined by some dark brown, oblique to median nervure, then inwardly oblique and ending at vein 1, crossed by a dark brown streak in submedian fold and with a dark brown streak beyond it in the cell; a medial series of grey-white spots, rather oblique to median nervure, then inwardly oblique and ending above vein 1; a grey-white band across end of cell, defined by some dark brown, extending to costa, produced on inner side to a point in discal fold and to a short streak on outer side ending in a curved mark on the discocellulars; a black-brown patch beyond the cell before the postmedial band which is grey-white defined by dark-brown, sinuous to vein 5 and slightly produced at vein 6, then oblique, reduced to slight spots to vein 2 and angled inwards in submedian fold; subterminal band narrow, whitish defined by dark brown, excurved below vein 7, angled inwards at vein 5 and excurved below it, then oblique, reduced to small spots and angled inwards in submedian fold; a terminal series of small rather tridentate dark brown spots. Hind

wing dark reddish brown, the base whitish. Underside of fore wing reddish brown, the costa and terminal area tinged with ochreous and striated with red-brown, the medial, postmedial, and subterminal bands with the whitish markings on subcostal area only, then indistinct and red-brown; hind wing with the costal area tinged with ochreous and with three ill-defined red-brown bands on costal area, and a maculate subterminal band from costa to vein 3.

♀. Head and thorax ochreous yellow slightly mixed with red-brown; abdomen with small patch of red-brown hair at base of dorsum; fore wing ochreous yellow striated with rufous, no dark points at base, the maculate whitish bands broader and continuous, the curved white discoidal band produced to a point on vein 5, the dark patch beyond the cell angled inwards below its extremity, the subterminal band defined on outer side by dark red-brown spots; hind wing ochreous yellow tinged with red-brown, a diffused brown discoidal lunule, a subterminal band with waved edges from below costa to submedian fold, excurved between veins 5 and 4; the underside similar but with the markings indistinct.

Hab. W. Colombia, San Antonio (*Palmer*) 2 ♂, 2 ♀ type; Monte Tolima (*Fassl*). type † ♀ *irregularis* in Coll. Rothschild. *Exp.*, ♂ 44, ♀ 56 millim.

1123 *e*. Opharus decrepidoides. (Plate LI. fig. 11.)

Opharus decrepidoides, Roths. Nov. Zool. xvi. p. 276 (1909).

♀. Head pale yellow with black spots above frons and on vertex of head; palpi black, the extremities of 2nd and 3rd joints ochreous; thorax ochreous mixed with red-brown, the tegulæ and patagia with black spots; pectus and legs ochreous, the femora and tibiæ with black spots and the tarsi ringed with blackish; abdomen orange-yellow, the basal half of dorsum clothed with pale brown hair followed by a series of black spots, lateral and sublateral series of blackish spots, the ventral surface with brown patches except towards base. Fore wing ochreous thickly striated with red-brown forming diffused dark patches on costal half of antemedial and medial areas and above and beyond end of cell; an antemedial maculate yellow band, angled outwards above median nervure, then very oblique; a medial maculate band, the patch in cell produced to points on inner and outer side in discal fold in which there is a black streak before it and the patch in submedian interspace angled inwards at submedian fold; a postmedial series of spots, angled outwards at vein 6, incurved below vein 4 and the spot in submedian interspace V-shaped and connected with the medial band and with a blackish streak beyond it in submedian fold; two subterminal lunules below costa, oblique marks above and below vein 6 and lunules above and below vein 2, all defined by dark brown and with some dark brown suffusion beyond them; a slight waved dark brown terminal line defining a series of small yellow spots on the termen and cilia which are brown. Hind wing

brownish ochreous; a dark discoidal point and terminal fuscous band, broad at costa, angled inwards at discal fold and ending at vein 1; an oblique ochreous bar from vein 5 to termen at vein 2; cilia ochreous; the underside with hoop-shaped brown mark from middle of costa to middle of cell.

Hab. Peru, Carabaya, S. Domingo (*Ockenden*). 1 ♀. *Exp.* 52 millim. Type † ♀ in Coll. Rothschild.

*1423 *d.* Opharus sestia. (Plate LI. fig. 15.)

Opharus sestia, Druce, A. M. N. H. (7) xviii. p. 84 (1906).

♂. Head and thorax black-brown, the sides of head orange, the vertex with white spot; the tegulæ and shoulders with white patches, the upper edge of patagia white, the patagia and prothorax with paired orange marks; pectus orange, brown, and whitish; legs brown; abdomen orange with brown hair on dorsum and slight black segmental lines, the ventral surface brown with orange sublateral spots. Fore wing brown mottled and striated with whitish, the veins dark; a small orange spot at base; an antemedial series of small white spots, oblique from costa to below the cell, then inwardly oblique and with larger white spots before it above and below submedian fold and a streak above inner margin connected with the postmedial series of spots: two spots in end of cell, one beyond the cell with a point above base of vein 6 and spot above them on costa; a postmedial series of small spots, excurved from below vein 7 to vein 4, then strongly incurved, a slight streak beyond it below costa and spot below vein 7; a subterminal series of large spots, arising from apex, incurved below vein 5 and bent outwards to tornus, with spots beyond it above and below vein 3. Hind wing pale brown with some whitish in lower extremity of cell and between bases of veins 6 to 2 and below vein 2.

Hab. Peru, Carabaya (*Ockenden*), type † ♂ in Coll. Joicey, Yahuarmayo. *Exp.* 46 millim.

1427. Opharus chorima, insert (syn.):—

Opharus catherinæ, Roths. Nov. Zool. xxiv. p. 482 (1917).

Brazil, Sta. Catherina, type † ♀ in Coll. Rothschild.

*1430 *a.* Opharus superba. (Plate LI. fig. 16.)

Opharus superba, Druce, A. M. N. H. (8) viii. p. 139 (1911).

♂. Head and thorax dark brown, the tegulæ dorsally and upper edge of patagia whitish; palpi with yellow spots on basal joint; sides of frons and vertex of head with fulvous spots; tegulæ tipped with fulvous towards sides, the shoulders with fulvous spots, the patagia with fulvous streaks, the meso- and metathorax with fulvous bands; pectus orange; legs brown; abdomen yellow with grey-brown dorsal streak on basal segments expanding into a patch

at middle, the ventral surface brown with sublateral series of yellow spots. Fore wing ochreous grey, the veins black; a fulvous spot at base; a double subbasal black line with fulvous spots between the lines below costa and cell; a double antemedial black line filled in with fulvous, angled outwards below costa and on median nervure and inwards in cell, incurved below the cell; a medial series of fulvous spots defined by black from costa to above vein 1, the spot at costa wholly black; a fulvous spot defined by black beyond the cell; postmedial line double, black filled in with fulvous and broken up into spots at costa and below vein 5, excurved from below costa to vein 4, then incurved; a subterminal series of rather diamond-shaped fulvous spots defined by black, the spot below vein 7 nearer the termen, the spot in submedian interspace tridentate; a terminal series of triangular yellow spots defined by black. Hind wing yellow with black-brown discoidal lunule and terminal band expanding on apical area and narrowing to tornus, with slightly waved inner edge.

Hab. S. Brazil, Alto da Serra Santos (*Kaye*), type † ♂ in Coll. Joicey. *Exp.* 78 millim.

1132 will stand as **Opharus punctularis.**

1132*a*. Opharus nexa.

Phegoptera nexa, Herr.-Schäff. Aussereur. Schmett. f. 290 (1855).

♂. Head and thorax orange with large patches of brown on head, tegulæ, patagia, and dorsum of thorax; palpi brown with yellow spot on 2nd joint and the 3rd joint yellowish; antennæ brown; pectus and legs brown with orange patch on the coxæ; abdomen orange with large brown patches on basal half, the ventral surface pale brown with whitish bands. Fore wing white, the veins with dark streaks; the base brown with yellow point at base and small subbasal spots below costa and cell; an antemedial brown band with yellow spots on it, angled outward on median nervure and ending at vein 1, a spot beyond it above vein 1; a brown patch in end of cell extending to costa and with yellow spot on it in the cell; a postmedial series of yellow spots defined by brown, incurved below vein 4; a subterminal series of yellow spots defined by brown, the spot below vein 7 nearer termen and the series bent inwards below vein 4 and ending at vein 1; a terminal series of small yellow spots defined by brown. Hind wing white, the veins faintly brownish, the termen yellowish.

♀. Fore wing with medial yellow spots defined by brown above and below submedian fold, some brown suffusion beyond the postmedial and subterminal maculate bands; hind wing suffused with brown leaving elongate whitish spots in the interspaces below the cell and subterminal spots from costa to vein 2.

Hab. Brazil, 2 ♂, 1 ♀. *Exp.* 60 millim. Type † in Mus. Berlin.

1432 *b*. Opharus albimacula. (Plate LI. fig. 17.)

Opharus albimacula, D. Jones, Trans. Ent. Soc. 1908, p. 147.

♀. Head and thorax red-brown; palpi with the extremity of 1st joint and a spot at extremity of 2nd yellow; lateral yellow spots on frons above and behind antennæ; tegulæ with white patches and yellow spots at middle and sides; patagia with yellow spots at base and middle and white spots near tips; coxæ yellow; abdomen brown with lateral yellow patches at base and the terminal segments yellow, the ventral surface tinged with white and with sublateral series of yellow spots. Fore wing white, the veins and discal and submedian folds with brown streaks; a basal brown patch with sinuous outer edge, a small yellow spot on it at base and subbasal spots below costa and cell; an irregular brown antemedial band strongly excurved at middle, with yellow spots on it below costa, in and below cell and striæ above and below submedian fold; the medial area with triangular brown patch from costa to median nervure with a small yellow spot on it in upper part of cell and a brown spot in submedian interspace; a postmedial brown band with minutely waved edges, broad and with double series of small yellow spots on it from costa to vein 4, then narrower, incurved and with single series of yellow spots; a subterminal brown line expanding into a spot at costa and irregular patches between veins 6 and 4 and 4 and 1, with yellow spots on it at costa and below veins 6, 4, and 2; a terminal series of yellow spots defined by brown; cilia chequered white and brown. Hind wing brown with a faint lunulate whitish subterminal band from costa to vein 2 and whitish spot just before termen below vein 4; a terminal series of yellow points from apex to vein 2; the underside with the base yellow, a whitish streak in cell, the subterminal band more distinct and terminal spots from apex to vein 3.

♂. Hind wing ochreous white except the veins and termen.

Hab. Brazil, 1 ♂, 1 ♀, Paraña, Curitiba (*D. Jones*). 1 ♀. *Exp.* 52 millim.

1433. Opharus astur, insert :—

Subsp. 1. *arizonensis*, Roths. Nov. Zool. xvi. p. 277 (1909).
fumata, Barnes, J. N. Y. Ent. Soc. xviii. p. 149 (1910); id. Contr. Nat. Hist. Lep. N. Am. i. 4, pl. x f. 7.

Fore wing whitish slightly more suffused with brown, the spots of the maculate bands smaller.

Hab. U.S.A., Arizona, Palmerlee, 1 ♂, 1 ♀, Huachuca Mts. (*Oslar*) 1 ♂, type † ♀ in Coll. Rothschild.

Subsp. 2. *cubensis*, Roths. Nov. Zool. xvi. p. 277 (1909).

♂. Fore wing with the markings darker brown, the spots of the maculate bands ochreous white.

♀. Fore wing paler, the markings less distinct, the spots of the maculate bands brownish white.

Hab. Cuba, type † ♂, ♀ in Coll. Rothschild.

*1433 *a*. Opharus ochracea.

Opharus ochracea, Joicey, P. Z. S. 1917, p. 269, pl. 1. f. 12 (1918).

Head and thorax white, the latter with the dorsum slightly tinged with ochreous, the frons above, vertex of head, basal joint of antennæ, tegulæ at middle and sides, patagia at base and near tips with small black spots, the patagia above and prothorax with black streaks; antennæ ochreous; palpi ochreous white with black streaks at sides of joints; pectus and legs ochreous, the fore coxæ and femora and the fore and mid femero-tibial joints with black spots; abdomen ochreous, the ventral surface white, dorsal black spots on three terminal segments and lateral, sublateral, and ventral spots except towards base. Fore wing ochreous brown; a black point on a white spot at base; a diffused white antemedial band, angled outwards in the cell; an oblique maculate white medial band with large spot in end of cell; a maculate postmedial white band, incurved below vein 4; a subterminal series of small white spots. Hind wing white tinged with ochreous. Underside white tinged with ochreous; fore wing with obscure white spots in and beyond end of cell.

Hab. Peru, Charape, R. Tabaconas (*Pratt*), type † ♂, ♀ in Coll. Joicey. *Exp.*, ♂ 54, ♀ 60 millim.

*1433 *b*. Opharus fasciata.

Opharus fasciatus, Roths. A. M. N. H. (8) iv. p. 228 (1909); id. Nov. Zool. xviii. pl. 5. f. 18.

♀. Head and thorax white faintly tinged with brown; palpi with black patch at side of 2nd joint and ring on 3rd joint; vertex of head and tegulæ with black spots; patagia with two black spots at base and one near tips; fore legs brown, the coxæ whitish with black spots; mid femora with black spot, the tibiæ and tarsi banded with brown; hind femora with brown spot; abdomen pale yellow, some brown hair on dorsum near base followed by dorsal and subdorsal series of black spots, sublateral series of black spots. Fore wing pale brown; the basal area whitish with black points below base of costa and cell; a curved antemedial maculate white band; a white spot at middle of costa followed by a maculate band from costa to median nervure; a postmedial series of white spots, incurved below vein 1 to below end of cell; a subterminal series of white spots, the spots at discal fold and below vein 3 further from termen; a terminal series of small bifid white spots at the veins. Hind wing semihyaline white tinged with brown, the veins browner; a faint terminal brownish band with white spot between veins 1 and 3.

Hab. Venezuela. Valencia, type † ♀ in Coll. Rothschild. *Exp.* 56 millim.

*1435 *a*. Hemihyalea subtenuimargo. (Plate LXV. fig. 22.)

Hemihyalea subtenuimargo, Roths. Nov. Zool. xxiii. p. 269 (1916).

♂. Head and thorax bright red-brown tinged with crimson, the tegulæ with white band at base, the frons white; antennæ dark

grey-brown towards base; palpi dark brown, the 2nd joint at extremity and 3rd joint in front white; abdomen crimson, the terminal segments dark brown except dorsally, the anal tuft crimson; fore and mid tibiæ and tarsi white; abdomen with lateral grey-brown fascia, the ventral surface olive-brown. Fore wing hyaline, the veins and costal and inner areas red-brown irrorated with white, the terminal area and cilia darker brown irrorated with white. Hind wing hyaline, the inner area and termen white, the cilia red-brown; the underside with the costal area pale red-brown.

Hab. Colombia, Monte Tolima (*Fassl*), type † ♂ in Coll. Rothschild. *Exp.* 70 millim.

*1435 *b*. Hemihyalea fusca.

Hemihyalea fusca, Roths. A. M. N. H. (8) iv. p. 214 (Sept. 1909): id. Nov. Zool. xvii. pl. 12. f. 24.

Hemihyalea erganoides, peruviana, Roths. Nov. Zool. xvi. p. 277 (Dec. 1909).

♂. Head and thorax deep red-brown, the dorsum of thorax crimson; pectus crimson; legs dark red-brown; abdomen crimson, the anal tuft and ventral surface red-brown. Fore wing hyaline, the margins narrowly deep red-brown, the inner edge of the terminal band dentate; a black point at upper angle of cell. Hind wing hyaline, the inner area tinged with crimson; the termen and cilia whitish, the cilia red-brown towards apex; the underside with the costa suffused with red-brown.

Ab. 1. *peruviana*. Head and thorax paler red-brown.

Hab. Peru, Carabaya, Agualani (*Ockenden*), type † ♂, and type ♂ *peruviana* in Coll. Rothschild. *Exp.* 70 millim.

Subsp. *colombiana*, Roths. Nov. Zool. xvii. p. 50 (1910).

Head, thorax, and margins of wing paler.

Hab. Colombia, Bogotá, type † ♂ in Coll. Rothschild.

*1435 *c*. Hemihyalea erganoides. (Plate LI. fig. 18.)

Hemihyalea erganoides, Dogn. Ann. Soc. Ent. Belg. xlvi. p. 232 (1902).

Amastus hyalina, orientalis, Roths. Nov. Zool. xvi. p. 279 (1909).

♂. Head and tegulæ and patagia rufous; palpi with the first two joints crimson at sides; genæ and back of head crimson; thorax crimson; pectus and legs pale brown, the former crimson at sides; abdomen crimson, the extremity and ventral surface whitish tinged with rufous; wings hyaline, the veins and margins pale rufous, the rufous on termen diffused inwards.

♀. Thorax dorsally pale brown with only a little crimson hair; abdomen with the hair on dorsum whitish brown.

Hab. Venezuela, Merida, type † ♂, ♀ in Coll. Dognin, type † ♂, ♀ *orientalis* in Coll. Rothschild. *Exp.* 62 millim.

*1435 *d*. Hemihyalea argillacea. (Plate LI. fig. 19.)

Hemihyalea argillacea, Roths. Nov. Zool. xvi. p. 277 (1909).

♂. Head and thorax pale ochreous; antennæ rufous; palpi

crimson at base and blackish at tips; femora crimson above; abdomen crimson, the ventral surface pale ochreous. Fore wing hyaline, the veins brownish, the costal and inner margins pale ochreous. Hind wing hyaline, the veins brownish.

Hab. U.S.A., Oregon, Gold Hill (*Biedermann*), type† ♂ in Coll. Rothschild. *Exp.* 68 millim.

1435 *e*. **Hemihyalea parergana.** (Plate LI. fig. 20.)

Hemihyalea parergana, Dogn. Mém. Soc. Ent. Belg. xix. p. 129 (1912).

♂. Head and thorax rufous, the prothorax with crimson spot, the metathorax with some crimson at sides; antennæ blackish, the shaft with some whitish towards base; throat with some crimson hair; abdomen crimson, the ventral surface rufous. Fore wing hyaline, the costa and inner margin sparsely clothed with rufous scales, the termen with dark brown scales. Hind wing hyaline, the margins thinly scaled with rufous, the cilia brownish.

Hab. Colombia, Quindin, Tochesito, type† ♂ in Coll. Dognin, Monte Tolima, 1 ♂. *Exp.* 68 millim.

1435 *f*. **Hemihyalea hyalina**, Dogn. trans. from *Amastus* no. 1469.

*1435 *g*. **Hemihyalea brunnescens.**

Hemihyalea brunnescens, Roths. A. M. N. H. (8) iv. p. 213 (1909); id. Nov. Zool. xvii. pl. 12. f. 25.

♂. Head and thorax bright rufous; palpi with the 3rd joint white in front; frons white; antennæ with the basal joint white in front; tegulæ with white line at base; shoulders with white patches; pectus strongly tinged with crimson; legs red-brown, whitish in front; abdomen crimson, the extremity red-brown with slight crimson band before the claspers, the ventral surface whitish tinged with red-brown. Fore wing hyaline, the margins red-brown, the band on inner margin expanding into a patch at base; the terminal band rather broad with waved inner edge, a sinuous yellowish line near its inner edge from below costa to vein 5; the discocellulars blackish. Hind wing hyaline, the inner margin and termen slightly tinged with rufous, rather deeper towards apex; the underside with the costa rufous.

Hab. Colombia, Bogotá; Peru, Carabaya, Agualani (*Ockenden*), type† ♂ in Coll. Rothschild, Tinguri, Limbani. *Exp.* 60 millim.

*1435 *h*. **Hemihyalea tenuimargo.** (Plate LII. fig. 1.)

Hemihyalea tenuimargo, Dogn. Hét. Nouv. Am. Sud, vi. p. 5 (1912).

♂. Head and thorax red-brown; frons whitish; metathorax with some crimson at sides; palpi with the basal joint fringed with crimson hair in front; pectus tinged with crimson; legs grey-brown; abdomen pale crimson, the terminal segments and ventral

surface grey-brown. Fore wing hyaline, the margins narrowly brown. Hind wing hyaline, the cilia white tinged with brown at tips towards apex.

Hab. Colombia, Bogotá (*Fassl*), type † ♂ in Coll. Dognin. *Exp.* 58 millim.

1436 *a*. Hemihyalea daraba.

Phægoptera daraba, Druce, A. M. N. H. (6) xiii. p. 173 (1894); id. Biol. Centr.-Am., Het. ii. p. 374, pl. 74. f. 15.

Distinct from *H. cornea* from Venezuela; fore wing with distinct ochreous spots on costa.

Hab. Mexico, Jalapa. *Exp.* 56–60 millim.

1436 *b*. Hemihyalea rhoda.

Phægoptera rhoda, Druce, A. M. N. H. (6) xiii. p. 173 (1894); id. Biol Centr.-Am., Het. ii. p. 375, pl. 74. f. 17.

Hemihyalea rhoda, subsp. *hildalgonis*, Dyar, Pr. U.S. Nat. Mus. li. p. 7 (1916).

Hemihyalea fuscescens, Roths. Nov. Zool. xvi. p. 277 (1909).

Distinct from *H. cornea*; fore wing rather browner with slight fuscous irroration, the costa with traces of ochreous spots on costa.

Ab. *hildalgonis*. Fore wing with faint pale bands at costa and inner margin and just traceable on disk.

Hab. Mexico, Guerrero, Hidalgo; Guatemala City; Costa Rica (*Underwood*), type † ♀ *fuscescens* in Coll. Rothschild. *Exp.* 54–66 millim.

1436 *c*. Hemihyalea testacea.

Hemihyalea testacea, Roths. A. M. N. H. (8) iv. p. 213 (1909); id. Nov. Zool. xvii. pl. 12. f. 16.

Differs from *H. cornea* in the male being without the well-defined terminal band to fore wing, the female with the fore wing not semihyaline on discal area.

Hab. Mexico, Jalapa (*Trujillo*), 1 ♀, type † ♀ in Coll. Rothschild; Mexico City, 1 ♂; Costa Rica, Candellaria Mts. (*Underwood*), 1 ♀. *Exp.* 60–62 millim.

1436 *d*. Hemihyalea annaria. (Plate LII. fig. 2.)

Hemihyalea annaria, Dyar, Insec. Inscit. Menstr. ii. p. 148 (1914).

♀. Head and thorax rufous; palpi blackish, the 1st and 2nd joints ochreous in front; legs ochreous, the femora crimson above; abdomen crimson, the ventral surface pale rufous, the anal tuft brownish. Fore wing semihyaline rufous: a subterminal series of minute blackish annuli with whitish centres from costa to above vein 3. Hind wing hyaline, the margins pale rufous, on terminal area rather diffused, the inner margin with some pale crimson hair; the underside with the inner area pale crimson.

Hab. Costa Rica, Juan Vinas (*Schaus*), 1 ♀, Tuis. *Exp.* 54 millim.

1436 *e*. **Hemihyalea ochracea.** (Plate LII. fig. 3.)

Hemihyalea ochracea, Roths. A. M. N. H. (8) iv. p. 213 (1909).

Differs from *H. cornea* in the disk of fore wing being very slightly hyaline, slightly irrorated and striated with fuscous, the costa and disk with faint ochreous spots.

Hab. Mexico, Jalapa (*Trujillo, Schaus*). 2 ♀: Panama, Chiriqui. *Exp.* 62 millim.

1436 *f*. **Hemihyalea mansueta.** (Plate LII. fig. 4.)

Halisidota mansueta, H. Ed. Papilio, iv. p. 75 (1884).

Is distinct from *H. cornea*; fore wing slightly hyaline with distinct ochreous spots and bands.

Hab. Mexico, Jalapa. *Exp.* 60 millim.

*1437 *a*. **Hemihyalea battyi.** (Plate LII. fig. 5.)

Hemihyalea battyi, Roths. Nov. Zool. xvi. p. 278 (1909).

♀. Head and thorax red-brown; palpi blackish, pale crimson in front; abdomen crimson, the ventral surface pale red-brown. Fore wing rufous irrorated and striated with black; a broad slightly curved semihyaline ochreous medial band defined by black striæ, its outer edge indented at vein 2; a semihyaline ochreous bar defined by black striæ from costa across end of cell; postmedial and subterminal series of semihyaline ochreous spots defined by black striæ. Hind wing pale semihyaline rufous.

Hab. Colombia, Palenka I. (*Batty*), type† ♀ in Coll. Rothschild. *Exp.* 66 millim.

1438 *a*. **Hemihyalea splendens.** (Plate LII. fig. 6.)

Hemihyalea labecula, subsp. 1, Hmpsn. Cat. Lep. Phal. B.M. iii. p. 131.
Hemihyalea splendens, Barnes, J. N. Y. Ent. Soc. xviii. p. 149 (1910); id. Contr. Nat. Hist. Lep. N. Am. i. iv. pl. x. f. 2.

Hab. U.S.A., Arizona, Palmerlee; Mexico, Milpas (*Ferrer*), 1 ♀.

1438 *b*. **Hemihyalea euornithia.** (Plate LII. fig. 7.)

Hemihyalea euornithia, Dyar, Insec. Inscit. Menstr. ii. p. 149 (1914); id. Pr. U.S. Nat. Mus. li. p. 6 (1916)

♂. Head ochreous white, the vertex tinged with red-brown; antennæ and palpi dark brown; thorax pale red-brown, the patagia with small dark brown spots near base; pectus tinged with crimson; femora crimson above, the tibiæ and tarsi black-brown banded with creamy white; abdomen crimson, the anal tuft and ventral surface ochreous yellow. Fore wing pale yellow, semihyaline except the marginal areas, the inner area reddish ochreous with some

pale crimson on medial part of inner margin, the terminal area ochreous tinged with rufous; a broad oblique subbasal black band from costa to submedian fold; an oblique antemedian black band from costa to median nervure and inwardly oblique band on inner area; a medial black spot on costa, V-shaped mark at origin of vein 2, and oblique bar on inner margin; a broad black band from costa to lower angle of cell, streaks on veins 3 and 2, and spot at inner margin; a postmedial rufous patch defined by blackish from costa to vein 6 and narrow blackish band from vein 5 to inner margin, incurved below vein 3; some black striæ on inner edge of the terminal area; cilia red-brown with series of small white spots. Hind wing hyaline, the veins and termen tinged with rufous, the inner area with crimson; the underside with the costal area ochreous with some black striæ on costa and at upper angle of cell, and blackish bar on termen below apex.

♀. Fore wing with the end of cell irrorated thickly with black, the inner margin black from before middle to tornus; hind wing with the end of cell and area below it only hyaline, the rest of wing pale rufous to vein 1 with some fuscous brown on costa emitting a discoidal bar and on apical area narrowing to a point at vein 3.

Hab. Mexico, Guerrero, Hidalgo (*Mann & Skewes*), 2 ♂, 1 ♀. *Exp.*, ♂ 54, ♀ 60 millim.

1438 *c*. **Hemihyalea nimbipicta.** (Plate LII. fig. 8.)

Hemihyalea nimbipicta, Dyar, Insec. Inscit. Menstr. ii. p. 148 (1914); id. Pr. U.S. Nat. Mus. li. p. 6 (1916).

♂. Head and thorax red-brown; antennæ ochreous at base; palpi darker brown; femora crimson above, the fore tibiæ and 1st joint of tarsi ochreous, the extremity of tibiæ and rest of tarsi dark brown, the mid and hind tibiæ ochreous, the terminal part of mid tibiæ, a streak on outer side of middle of hind tibiæ and patch at extremity, and the tarsi dark brown; abdomen crimson with some reddish ochreous at base, lateral series of black spots except towards base, the anal tuft and ventral surface reddish ochreous. Fore wing dark reddish brown mixed with some ochreous, especially below the cell, and slightly striated with black, some reddish ochreous at base of inner margin; an ill-defined obliquely curved blackish subbasal band; an ill-defined slightly curved blackish antemedial band, narrowing to above inner margin and with ochreous mark at costa; a diffused oblique medial blackish band with waved edges, ending above inner margin and with ochreous mark at costa; an oblique slightly curved maculate postmedial band with slight ochreous marks at costa; an oblique maculate subterminal blackish band with diffused black marks before it between veins 7 and 3. Hind wing pale crimson, the cell and area just below and beyond it semihyaline, the costa towards apex black-brown; the underside with the costal area ochreous to end

of cell, the costa, except towards base, upper end of cell and disco-cellulars with black-brown irroration and small spots, the terminal area striated with black-brown to vein 4.

♀. Fore wing without the diffused black before the subterminal band; underside of hind wing with more black-brown irroration on costal area and the striation on terminal area extending to vein 1.

Ab. 1. Fore wing with the ochreous patches on costa more prominent, the base of inner margin ochreous ending in an ante-medial bar, medial and postmedial ochreous spots on inner margin and a subterminal series of ochreous spots.

Hab. Mexico, Guerrero, Hidalgo (*Mann & Skewes*), 5 ♂, 5 ♀. *Exp.* 64 millim.

1442. **Hemihyalea hyalina**, Druce (July 1889) nec Dognin (Jan. 1889), rename **H. vitripennis.**

*1443*a*. **Hemihyalea vitreata.** (Plate LXV. fig. 23.)

Amastus vitreata, Roths. Nov. Zool. xxiii. p. 270 (1916).

♀. Head and thorax white, the patagia with yellow fascia, the sides of frons and palpi reddish brown; antennæ blackish towards base, rufous towards tips and with some white on the shaft near base; abdomen white tinged with brown, the anal tuft pure white; legs tinged with brown; ventral surface of abdomen red-brown, whitish at base. Fore wing hyaline, the veins red-brown, the costal area tinged with red-brown, the inner margin white; cilia white tinged with red-brown. Hind wing hyaline, the inner area and terminal area below vein 3 sparsely clothed with white scales; cilia white, tinged with red-brown towards apex; the underside with the costa white tinged with red-brown.

Hab. Colombia, Monte Tolima (*Fassl*), type †, ♀ in Coll. Rothschild. *Exp.* 70 millim.

*1443 *b*. **Hemihyalea debilis.** (Plate LXV. fig. 24.)

Amastus debilis, Roths. Nov. Zool. xxiii. p. 270 (1916).

♀. Head, thorax, and abdomen white suffused with rufous; the last with the anal tuft white; antennæ rufous, blackish towards base, with some white on shaft above; frons white; palpi rufous; pectus, legs, and ventral surface of abdomen white tinged with rufous, the pectus with broad crimson stripe at sides. Fore wing hyaline, the veins and margins sparsely clothed with rufous scales; cilia rufous. Hind wing hyaline, the cilia rufous; the underside with the costal area tinged with rufous.

Hab. Venezuela, Merida (*Briceno*), type † ♀ in Coll. Rothschild. *Exp.* 60 millim.

*1443 *c*. Hemihyalea melas. (Plate LII. fig. 9.)

Opharus melas, Dogn. Ann. Soc. Ent. Belg. xlvi. p. 232 (1902).

♀. Head and thorax black-brown; abdomen black-brown, rather paler towards base. Fore wing uniform dark brown, rather thinly scaled. Hind wing pale semihyaline brown.

♂. Hind wing semihyaline white.

Hab. Colombia, Popayan type † ♀ in Coll. Dognin; Peru, Cuzco, ♂ in U.S. Nat. Mus. *Exp.* 68 millim.

*1443 *d*. Hemihyalea hampsoni.

Hemihyalea hampsoni, Joicey, A. M. N. H. (8) xviii. p. 61, pl. xiv. f. 18 (1916).

♂. Head and thorax deep orange; antennæ and 3rd joint of palpi black; legs black; abdomen black with a faint bluish gloss. Fore wing uniform black-brown. Hind wing black-brown with the lower part of cell and interspaces just below and beyond it paler. Underside of fore wing with orange streaks on basal part of subcostal nervure and vein 1.

Hab. Fr. Guiana, type † ♂ in Coll. Joicey. *Exp.* 46 millim.

*1444 *a*. Pseudopharus domingona. (Plate LII. fig. 10.)

Opharus domingona, Druce, A. M. N. H. (7) xviii. p. 83 (1906).

♂. Head and thorax black-brown; shoulders and metathorax with white spots; coxæ with white patches; abdomen with the basal half black-brown, the terminal half orange with black segmental lines and anal tuft, the ventral surface with the basal half orange, the terminal half black. Fore wing brown, the veins and a diffused discoidal spot darker; a white point at base. Hind wing white, the veins, apex and termen tinged with brown, the inner area clothed with brown hair.

Hab. Peru, S. Domingo (*Ockenden*), type † ♂ in Coll. Joicey. *Exp.* 44 millim.

*1444 *b*. Pseudopharus cornelia. (Plate LII. fig. 11.)

Opharus cornelia, Druce, A. M. N. H. (7) xviii. p. 83 (1906).

♂. Head and thorax black-brown, the vertex of head, base of patagia, and metathorax with small bluish white spots; abdomen orange-yellow with black-brown segmental bands, the 1st two segments brown, the 2nd with lateral yellow spots, the anal segment and ventral surface black-brown. Fore wing black-brown, the veins and a diffused discoidal spot darker. Hind wing black-brown, the lower part of cell, area below it and above base of vein 2 hyaline.

Hab. Peru, S. Domingo (*Ockenden*), type † ♂ in Coll. Joicey. *Exp.* 42 millim.

1444 *c*. Pseudopharus hades.

Pseudopharus hades, Dognin, Ann. Soc. Ent. Belg. liii. p. 221 (1909).

Fore wing with vein 10 very slightly stalked with 7, 8, 9; hind wing with vein 8 absent.

Head, thorax, and abdomen black-brown, the last with orange dorsal and lateral bands on 3rd to 7th segments. Fore wing fuscous

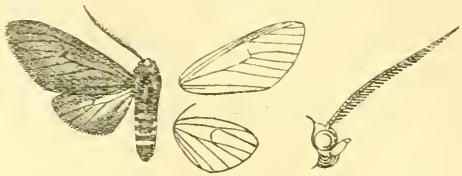

Fig. 76.—*Pseudopharus hades*, ♂. ½.

brown with a faint olive tinge, the veins black; a minute white point below base of costa: an indistinct lunulate dark discoidal spot. Hind wing fuscous brown with the cell and area just below it semihyaline.

Hab. Colombia, W. slopes, 1 ♂, Tolima, 1 ♂, type † ♀ in Coll. Dognin. *Exp.* 42–48 millim.

*1448 *a*. Amastus formosana. (Plate LXVII. fig. 1.)

Amastus formosana, Schaus, Ent. News Philad. p. 174 (1919).

♂. Head and thorax fuscous brown suffused with grey, the tegulæ and patagia at tips with yellow spots, the antennæ with the branches red-brown; palpi crimson, dark grey in front and the 3rd joint dark grey; pectus crimson mottled with yellow-brown; legs dark grey, streaked with crimson towards base; abdomen crimson, the extremity grey, the ventral surface dark grey, expanding laterally towards extremity. Fore wing fuscous brown suffused with grey; an antemedial series of five ochreous white spots, two in the cell, two in submedian interspace, and one above inner margin; a large lunulate ochreous white spot in end of cell, conjoined below to the postmedial maculate band of seven spots in the interspaces between vein 7 and inner margin, strongly incurved below vein 4, the spot below vein 6 conjoined to the spot of the subterminal series of seven small spots. Hind wing white tinged with ochreous, the inner area with crimson, the veins, and termen narrowly, black.

Hab. Argentina, El Saltadillo. *Exp.* 74 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

1448 *b*. Amastus antonio. (Plate LII. fig. 12.)

Amastus antonio, Dogn. Le Nat. (2) xv. p. 179 (1901); id. Ann. Soc. Ent. Belg. xlv. p. 304.

Head yellowish white; palpi, antennæ, and back of head brown, some crimson behind 1st joint of palpi and in front of 1st joint of

antennæ; thorax red-brown mixed with blackish, tegulæ crimson at base, then white followed by a black medial line; patagia with yellow streak and yellowish white upper edge; fore coxæ crimson in front; abdomen crimson, the extremity black with pale crimson patch on anal tuft, lateral and sublateral series of small white spots except towards base, the ventral surface pale brown. Fore wing reddish brown suffused with fuscous, the discal area thinly scaled; the veins, except below costa, and streaks in cell and submedian fold black; the costal, inner, and terminal areas slightly irrorated with whitish scales; traces of a waved whitish postmedial line excurved from costa to vein 4, then oblique; a waved whitish subterminal line. Hind wing pale reddish brown, thinly scaled, the veins darker.

Hab. Argentina, Tucuman, 1 ♂, 1 ♀, type † ♂ in Coll. Dognin. La Rioja (*Giacomelli*), 1 ♀. *Exp.* 50 millim.

*1451*a*. Amastus thermidora. (Plate LII. fig. 13.)

Amastus thermidora, Dogn. Mém. Soc. Ent. Belg. xxii. p. 4 (1913).

♀. Head and thorax chocolate-brown mixed with some rufous, the dorsum of thorax with some pink; abdomen pink, the extremity, sides, and ventral surface chocolate-brown. Fore wing chocolate-brown slightly irrorated with ochreous; antemedial line ochreous, oblique towards costa and inner margin, expanding somewhat below costa, short black streaks beyond it in discal fold and on median nervure; a curved black discoidal striga expanding into small spots at angles of cell and defined on inner side by ochreous; postmedial line slight, ochreous, touching the upper angle of cell and produced to short streaks on veins 7, 6, then incurved to the discocellulars, angled outwards at vein 5, then oblique and slightly dentate; the veins beyond the cell streaked with black; subterminal line distinct, ochreous, dentate, very acutely angled inwards at discal fold. Hind wing semihyaline ochreous, the terminal area suffused with reddish brown leaving somewhat dentate ochreous marks in the interspaces before termen from apex to vein 1; the underside with the costal and terminal areas suffused with chocolate-brown, a curved dark discoidal striga.

Hab. Ecuador, Loja, type † ♀ in Coll. Dognin. *Exp.* 82 millim.

*1452*a*. Amastus deinella, n. sp. (Plate LII. fig. 14.)

Amastus erebella. Roths. Nov. Zool. xvi. p. 278 (nec Mösn.).

♀. Head and thorax dark brown suffused with crimson; palpi, frons, antennæ, and legs black-brown; pectus crimson; abdomen dark brown, some crimson hair at base, lateral crimson points on terminal half, the ventral surface crimson except terminal segments. Fore wing dark brown, thinly scaled; some crimson hair at base of

inner magin. Hind wing semihyaline brown; the base, inner area, and termen tinged with crimson.

Hab. Peru, Agualani (*Ockenden*), type † ♀ in Coll. Rothschild. *Exp.* 70 millim.

1452. Amastus pseuderebella. (Plate LII. fig. 15.)

Amastus erebella, Hmpsn. Cat. Lep. Phal. B.M. iii. p. 137 (nec Mssn.).
Amastus pseuderebella, Roths. Nov. Zool. xvi. p. 279 (1909).

Colombia, Bogotá, type † ♂ in Coll. Rothschild.

*1452 *b*. Amastus erebella.

Lophocampa erebella, Mssn. Stübel's Reise S. Amer., Lep. p. 131, pl. iv. f. 29 (1890); Kirby, Cat. Lep. Het. p. 906.

Head and thorax reddish brown mixed with ochreous, the metathorax with some crimson at sides; pectus tinged with crimson at sides; legs greyish brown; abdomen grey-brown tinged with crimson at sides towards base. Fore wing pale red-brown mixed with black-brown, thinly scaled; a slight dark discoidal lunule. Hind wing semihyaline whitish, the inner margin and the costa towards apex tinged with pale brown: the underside with the costal area tinged with red-brown.

Hab. Colombia, Monte Tolima (*Fassl*), ♂, ♀ in Coll. Dognin. *Exp.* 62–66 millim.

*1452 *c*. Amastus tristis.

Hemihyalea tristis, Roths. A. M. N. H. (8) iv. p. 213 (1909); id. Nov. Zool. xvii. pl. 12. f. 17.

♂. Head and thorax rufous: palpi dark brown; lower part of frons white: antennæ with the basal joint white in front; shoulders with white stripes; pectus with some dull crimson hair: legs grey-brown; abdomen dull crimson, the extremity dark brown and white, the ventral surface grey-brown. Fore wing pale red-brown, thinly scaled; the discocellulars blackish; an indistinct pale waved subterminal line. Hind wing hyaline tinged with rufous, especially the veins and apical area.

Hab. Colombia, Bogotá; Peru, Carabaya, Agualani (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 58 millim.

*1452 *d*. Amastus subterminata. (Plate LII. fig. 16.)

Amastus subterminata, Dogn. Hét. Nouv. Am. Sud. vi. p. 5 (1912).

♀. Head and thorax red-brown mixed with darker brown and greyish; antennæ, palpi, and legs dark brown; metathorax with some crimson at sides; abdomen grey-brown, the base with some crimson at sides, the terminal segments and ventral surface dark brown. Fore wing semihyaline brownish irrorated with hairy black-brown scales, the marginal areas redder brown; an ochreous post-

medial spot below costa; an indistinct rather diffused ochreous subterminal line, excurved below costa, then slightly waved. Hind wing semihyaline tinged with red-brown, the cilia darker brown.

Hab. Colombia, Monte Tolima (*Fassl*). type † ♀ in Coll. Dognin. *Exp.* 56 millim.

*1452 *e*. Amastus erebelloides. (Plate LII. fig. 17.)

Amastus erebelloides, Roths. Nov. Zool. xvi. p. 278 (1909).

♀. Head and thorax red-brown, the vertex of head, tegulæ, outer half of patagia, and a dorsal streak on thorax more rufous; palpi brown, dull crimson in front: antennæ brown with the basal joint crimson on outer side; pectus dull crimson; legs brown; abdomen crimson, the terminal segments and ventral surface brown. Fore wing red-brown, the discocellulars blackish, the apical area tinged with fuscous. Hind wing semihyaline ochreous white, the costal area tinged with brown, the inner margin with some pale crimson hair.

Hab. Peru, Carabaya, Agualani (*Ockenden*), type † ♀ in Coll. Rothschild, Limbani. *Exp.* 60 millim.

*1453 *a*. Amastus rufescens.

Amastus rufescens, Roths. A. M. N. H. (8) iv. p. 216 (1909); id. Nov. Zool. xvii. pl. 13. f. 29.

♂. Head and thorax deep red-brown with some orange-red on back of head and prothorax; palpi black-brown fringed with orange-red hair in front; pectus orange-red; legs brown; abdomen orange-red, the ventral surface brown. Fore wing deep red-brown irrorated with whitish scales; a blackish discoidal lunule defined by a faint ochreous tinge; a subterminal ochreous line, incurved at discal fold and slightly sinuous towards inner margin. Hind wing pale ochreous, the termen and cilia brown; the underside with the costal area suffused with brown.

Hab. Peru, Carabaya, Agualani (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 56 millim.

*1453 *b*. Amastus dognini.

Amastus dognini, Roths. A. M. N. H. (8) iv. p. 215 (1910); id. Nov. Zool. xvii. pl. 13. f. 22.

♂. Head and thorax dark brown slightly mixed with grey; pectus in front tinged with crimson; abdomen dull crimson tinged with brown towards extremity, the ventral surface brown. Fore wing dark reddish brown; a large blackish brown discoidal lunule placed on a yellow patch with an oblique yellowish line from it to vein 1; a lunulate yellow subterminal line, angled inwards at discal fold. Hind wing semihyaline white, the veins, termen, and cilia brownish; the underside with the costal area suffused with brown.

Hab. Peru, S. Domingo (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 50 millim.

*1453 *c*. **Amastus volcancita.** (Plate LII. fig. 18.)

Amastus volcancita, Dogn. Hét. Nouv. Am. Sud. iii. p. 10 (1911).

♀. Head and thorax dark brown mixed with some grey, the edges of patagia grey, the dorsum of thorax crimson; palpi black mixed with red-brown; pectus dull crimson; legs grey-brown; abdomen crimson, the terminal segments black, the ventral surface grey-brown. Fore wing semihyaline brownish white, the basal area thickly irrorated with black-brown, the rest of wing thickly striated with waved black lines anastomosing in parts; a paler patch in and beyond end of cell from costa to vein 2; its outer edge curved, a black-brown spot on it at upper angle of cell; traces of a pale waved subterminal line towards costa. Hind wing semihyaline brownish white, the terminal area more strongly tinged with brown; cilia whitish at tips; the underside with the costal area red-brown.

Hab. Colombia. Quindin, Volcancita, type † ♀ in Coll. Dognin. *Exp.* 74 millim.

*1453 *d*. **Amastus paramensis.** (Plate LIII. fig. 1.)

Amastus paramensis. Dogn. Hét. Nouv. Am. Sud, iii. p. 11 (1911).

♂. Head and thorax dark brown, mixed with greyish brown; palpi black-brown; pectus and legs red-brown; abdomen red-brown, the basal half of dorsum clothed with pale crimson hair. Fore wing pale greyish brown thickly striated with dark brown lines to the subterminal line, the terminal area irrorated with brown; a dark brown discoidal lunule; a rather diffused pale waved subterminal line, slightly angled inwards at discal fold. Hind wing semihyaline brownish white, the inner area tinged with pale crimson; the underside with the costa red-brown.

Hab. Colombia. Paramo del Quindin, type † ♂ in Coll. Dognin. *Exp.* 66 millim.

*1453 *e*. **Amastus ferreobrunnea.** (Plate LXVI. fig. 7.)

Hemihyalea ferreobrunnea, Roths. Nov. Zool. xxiii. p. 269 (1916).

♂. Head and thorax bright red-brown; antennæ with the shaft blackish, white above towards base; frons white; palpi black-brown, red-brown in front towards base, the 2nd joint towards extremity and 3rd joint white in front; abdomen pale red-brown, dorsally suffused with grey-black towards extremity; legs whitish suffused with brown. Fore wing bright red-brown irrorated with whitish, semihyaline except the marginal areas; the discocellulars blackish forming a minute spot at lower angle of cell; a faint pale rufous subterminal line; cilia dark brown at tips. Hind wing semihyaline white, the marginal areas pale red-brown.

Hab. Colombia, Monte Tolima (*Fassl*). type † ♂ in Coll. Rothschild. *Exp.* 76 millim.

1453 *f*. **Amastus childi.** (Plate LIII. fig. 2.)

Amastus childi. Roths. Nov. Zool. xvi. p. 279 (1909)
Hemihyalea lehmanni. Roths. Nov. Zool. xxiii. p. 269 (1916).

♂. Head and thorax pale rufous; palpi brown at sides; frons

white; antennæ brown, white at base; legs pale brown mixed with whitish; abdomen pale grey-brown, dorsally tinged with crimson at base. Fore wing pale rufous, thinly scaled; some black scales at lower angle of cell; traces of a rather diffused pale subterminal line slightly excurved below vein 7 and at middle. Hind wing semihyaline, tinged with pale rufous; the underside with the costal area pale rufous.

Hab. Colombia, Bogotá (*Child*), type † ♀ in Coll. Rothschild. Quindin, Tochesito, 1 ♀, Papayan (*Lehmann*), type † ♀ *lehmanni* in Coll. Rothschild. *Exp.* 66 millim.

1453 *g*. Amastus genoveva, Dogn.

*1453 *h*. Amastus rubidorsata. (Plate LIII. fig. 3.)

Amastus rubidorsata, Dogn. Hét. Nouv. Am. Sud, vi. p. 5 (1912).

♂. Head ochreous white with some crimson behind, the antennæ rufous, the palpi with the 2nd joint crimson above; tegulæ and patagia ochreous white, the former orange-fulvous at tips, the latter with orange-fulvous streak; dorsum of thorax crimson; pectus in front and a streak below shoulders crimson; fore femora and tibiæ on inner side rufous; abdomen crimson, the extremity and ventral surface ochreous white. Fore wing hyaline the margins tinged with rufous. Hind wing hyaline; cilia white, tinged with rufous towards apex.

Hab. Peru, Carabaya, Oconeque, type † ♂ in Coll. Dognin. *Exp.* 60 millim.

*1453 *i*. Amastus diaphenes. (Plate LXIX. fig. 1.)

Amastus diaphenes, Dyar, Insec. Inscit. Menstr. ii. p. 151 (1914).

♂. Head and fore half of thorax red-brown, the hinder half of thorax and abdomen pale crimson; genæ, palpi at base, and pectus pale crimson; ventral surface of abdomen red-brown. Wings hyaline, the veins and margins narrowly red-brown.

Hab. Colombia. *Exp.* 62 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

*1456 *a*. Amastus rothschildi. (Plate LIII. fig. 4.)

Amastus rothschildi, Dogn. Hét. Nouv. Am. Sud. i. p. 10 (1910).

♀. Head and thorax crimson mixed with red-brown; palpi brown at tips; frons white; antennæ dark brown; a white band on base of tegulæ and shoulders slightly edged with dark brown; patagia with brownish stripes; pectus crimson; legs pale brown; abdomen crimson, the extremity grey-white with some black-brown on dorsum of penultimate segment, the terminal segments with grey lateral spots edged with dark brown and crimson streak below them, the ventral surface pale red-brown. Fore wing uniform chestnut brown. Hind wing semihyaline tinged with pale rufous especially on terminal area.

Hab. Colombia, San Antonio (*Fassl*), type † ♀ in Coll. Dognin. *Exp.* 76 millim.

*1456 *b*. Amastus scriblita. (Plate LIII. fig. 5.)

Amastus scriblita, Dogn. Hét. Nouv. Am. Sud. iii. p. 11 (1911).

♀. Head and thorax bright rufous, the edges of patagia and dorsum of thorax with crimson mixed; palpi black-brown above and at tips; antennæ brown; pectus crimson; legs grey-brown; abdomen crimson, the terminal half brown, the ventral surface brown except at base. Fore wing uniform bright rufous, thinly scaled; cilia brown. Hind wing semihyaline pale rufous.

Hab. Colombia, Quindin, Tochesito, type † ♀ in Coll Dognin. *Exp.* 70 millim.

*1456 *c*. Amastus umber.

Amastus umber, Roths. Nov. Zool. xvi. p. 279 (1909), & xviii. pl. 5. f. 25.

♀. Head and thorax dark red-brown; antennæ black-brown; coxæ pinkish; abdomen pale crimson, the terminal segments ochreous, lateral series of red-brown spots slightly irrorated with whitish and defined by black except towards base, the ventral surface red-brown. Fore wing deep red-brown; a faint pale antemedial band; a faint dark discoidal patch and oblique shade from lower angle of cell to inner margin; two faint pale postmedial lines, oblique below vein 5; a faint diffused pale subterminal line, slightly incurved to costa. Hind wing semihyaline tinged with red-brown, the cilia red-brown; the underside with the costa red-brown.

Hab. Venezuela, Merida (*Briceno*), type † ♀ in Coll. Rothschild. *Exp.* 82 millim.

1457. Amastus flavicauda, (Plate LIII. fig. 6.)

Amastus suffusa, Hmpsn. Cat. Lep. Phal. B.M. iii. p. 139 (nec Herr.-Schäff.).
Amastus flavicauda, Roths. Nov. Zool. xvi. p. 278 (1909).

Panama, Chiriqui, type † ♀ in Coll. Rothschild.

*1457 *a*. Amastus affinis. (Plate LIII. fig. 7.)

Amastus affinis, Roths. Nov. Zool. xvi. p. 278 (1909).

♀. Head and thorax red-brown mixed with whitish; palpi black-brown; neck with crimson band; tegulæ with pale crimson streaks defined by blackish; dorsum of thorax with paired crimson streaks; pectus and legs greyish brown, some crimson below the wings and on fore coxæ; abdomen crimson with lateral and sublateral series of rufous spots defined by black, the ventral surface rufous. Fore wing pale rufous, the medial area semihyaline except towards costa and inner margin, the veins dark; a curved semihyaline antemedial band from costa to vein 1, defined by brown and with some dark suffusion before it on costal area; the disco-

cellulars blackish placed on a brown patch extending to costa, and traces of an oblique band from lower angle of cell to inner margin; a postmedial pale band defined by waved brown lines, oblique below vein 4; the terminal area rather darker brown with the pale waved subterminal line on it, incurved at discal fold. Hind wing semihyaline whitish, the veins and margins pale rufous.

Hab. Ecuador, Zamora; Peru, Carabaya, S. Domingo (*Ockenden*), type † ♀ in Coll. Rothschild, Oconeque, Tinguri, Agualani, Chiri-Mayo. *Exp.* 61 millim.

*1457 *b*. Amastus hampsoni.

Amastus hampsoni, Roths. A. M. N. H. (8) iv. p. 214 (1909); id. Nov. Zool. xvii. pl. 12. f. 19.

♂. Head and thorax black-brown; neck with crimson ring; tips of tegulæ and streaks on patagia orange: pectus in front and below the wings and coxæ crimson; abdomen crimson, the anal segment brown with a black spot followed by some crimson hair at base, the ventral surface dark brown, lateral series of grey spots defined by black and with orange points below them. Fore wing red-brown with some pale grey on medial area, the veins and streaks in cell and submedian fold black-brown; a curved dark brown antemedial line from below costa to vein 1, expanding into a spot in cell; a quadrate dark brown patch in end of cell with oblique band from it to above vein 1 and narrow reddish brown bands before and beyond it, the former curved, the latter incurved below the angle of cell; a postmedial maculate band formed by grey-brown spots defined by dark brown, excurved to vein 4, then incurved, defined on outer side by grey; a lunulate grey subterminal line angled inwards at discal fold. Hind wing semihyaline brownish grey, the apex tinged with reddish brown; the underside with the costal area suffused with red-brown, a faint discoidal lunule and faint pale subterminal line from costa to vein 2.

Hab. Ecuador, Paramba, type † ♂ in Coll. Rothschild. *Exp.* 78 millim.

1457 *c*. Amastus rosenbergi.

Amastus rosenbergi, Roths. Nov. Zool. xvii. p. 55, pl. 13. f. 23 (1910).

Head and thorax red-brown slightly mixed with fuscous and greyish; neck with crimson ring; coxæ with crimson spots; abdomen crimson, the extremity orange with dorsal black fascia, two lateral black streaks, the ventral surface red-brown. Fore wing red-brown slightly mixed with greyish ochreous; an indistinct fuscous brown antemedial band defined by waved blackish lines, obliquely excurved to median nervure and ending at vein 1; an ill-defined mottled fuscous brown medial band; a red-brown discoidal spot defined by dark lines, constricted at middle and with

mottled fuscous spot beyond it: a curved lunulate brown postmedial band defined by blackish lines, and a similar narrower subterminal band. Hind wing pale semihyaline brownish.

Hab. W. Colombia, San Antonio (*Palmer*), 1 ♂, R. Cauca, Guabinas, 1 ♂. 1 ♀. *Exp.* 74 millim. Type † in Coll. Rothschild.

*1457 *d.* Amastus suffusa.

Phægoptera suffusa, Herr.-Schäff. Ausser. Eur. Schmett. f. 67 (1853).

♂. Head and thorax red-brown and rufous mixed with grey, the edges of patagia grey; pectus in front with some crimson; abdomen orange suffused with crimson except at extremity, a grey and black bar at base of anal segment, a lateral series of grey spots edged with black except on basal segments, the ventral surface red-brown with some sublateral orange points near extremity. Fore wing ochreous brown suffused with red-brown on basal and terminal areas; two diffused curved sinuous red-brown antemedial bands and two oblique medial bands, the outer with the dark brown discoidal lunule on it; postmedial line red-brown, slightly waved, excurved to vein 4, then oblique, with some ochreous brown beyond it before the red-brown terminal area; subterminal line ochreous, irregularly waved, bent inwards to costa. Hind wing pale yellow-brown, the disk semihyaline; cilia red-brown.

♀. Abdomen with black dash on anal segment instead of the grey and black bar, a sublateral series of black striæ with an orange point on penultimate segment.

Hab. Venezuela in Coll. Rothschild. *Exp.*, ♂ 82, ♀ 92 millim.

1458 *a.* Amastus fulvizonata. (Plate LIII. fig. 8.)

Amastus fulvizonata, Hmpsn. A. M. N. H. (8) iv. p. 358 (1909).

♂. Palpi black with some white in front and scarlet at sides; frons white with oblique black bars above, the vertex of head and spots in front of antennæ fulvous yellow; antennæ black; tegulæ white at base with black medial line and fulvous tips; patagia white with sinuous fulvous fascia at middle defined by black; thorax rufous and yellow; pectus and legs brown and white, the coxæ crimson, the fore tibiæ with orange stripes above; abdomen crimson with lateral series of triangular white and yellow patches defined by black, the ventral surface white with sublateral series of fulvous spots defined by black. Fore wing semihyaline white irrorated with black, the veins streaked with black and irrorated with yellow; a small yellow spot at base with white streaks below it and a white streak above basal part of inner margin; an antemedial white bar from costa and oblique bar from inner margin; a medial white spot on costa, slight mark on vein 2, and oblique bar on inner margin confluent with the antemedial bar; postmedial line represented by an angled white striga from costa and oblique

series of slight marks on the veins and inner margin with fulvous yellow marks beyond it on costa, veins, and inner margin; an irregular subterminal whitish patch on costal area and patches in the interspaces of terminal area; a series of small yellow wedge-shaped marks defined by black on the termen and cilia. Hind wing semihyaline white, the veins, base, and inner margin tinged with yellow; the underside with the costa tinged with brown.

♀. Fore wing less hyaline, more suffused with black and irrorated with yellow, the antemedial, medial, and postmedial white bands and the yellow postmedial band more complete; hind wing with the termen and cilia brown with series of small yellow spots from apex to vein 2.

Hab. S.E. Peru, Agualani (*Ockenden*), 1 ♂, 1 ♀ type. *Exp.*, ♂ 60, ♀ 70 millim.

*1458 *b*. Amastus steinbachi.

Amastus steinbachi, Roths. A. M. N. H. (8) iv. p. 215 (1909); id Nov. Zool. xvii. pl. 13. f. 20.

♂. Head white, the palpi and antennæ red-brown; tegulæ deep crimson with broad white band; patagia white with brown patch defined by black at shoulders and black fascia with white streak in centre; dorsum of thorax deep crimson with a slight white streak; pectus crimson with white lateral patches; legs ochreous brown; abdomen ochreous brown with the hair on basal half of dorsum crimson, the terminal segments with slight white lines, the anal segment with pink dorsal spot, the anal tuft white, lateral series of black and whitish spots. Fore wing white thickly irrorated with dark brown, the disk semihyaline, the costal edge ochreous, the terminal area ochreous irrorated with brown; a curved white antemedial line defined by dark brown suffusion, a small black spot before it above vein 1 and a blackish patch beyond it on inner margin; an indistinct oblique minutely waved white medial line; a blackish discoidal lunule with whitish annulus, attenuate above; a postmedial lunulate brownish ochreous band with black lines at edges defined by white, excurved to vein 4, then oblique, followed by blackish suffusion, then another lunulate brownish ochreous band edged by black lines and with some white beyond it; the veins at termen and cilia brownish. Hind wing semihyaline white, the extreme apex tinged with brown; the underside with the costal area brownish ochreous.

Hab. Argentina, Tucuman (*Steinbach*), type† ♂ in Coll. Rothschild. *Exp.* 62 millim.

*1460 *a*. Amastus watkinsi. (Plate LXVI. fig. 8.)

Amastus watkinsi, Roths. Nov. Zool. xxiii. p. 269 (1916).

♀. Head and thorax white, the head with orange-yellow band behind and spots at sides of frons defined by dark brown, the tegulæ with orange-yellow band, the patagia with incurved band

defined by dark brown, the dorsum of thorax orange-yellow; antennæ black; palpi orange-yellow with black spots at base of 1st and 2nd joints, the 2nd joint in front towards extremity and the 3rd joint black; abdomen orange-yellow; legs brown mixed with whitish; ventral surface of abdomen white with lateral black bars and sublateral series of orange-yellow spots defined by black. Fore wing thinly scaled, white suffused with brown, the veins black; an orange-yellow spot at base of cell; an ill-defined broad whitish antemedial band, narrowing on costal area, a waved whitish line beyond it; a white medial band, angled outwards below costa, then oblique; a waved whitish postmedial line defined at sides by dark brown, excurved from below costa to vein 4, then incurved; a diffused whitish band before the subterminal line, which is brown, waved, bent outwards between veins 7, 6; a waved dark terminal line defining small triangular whitish spots at the extremities of the veins. Hind wing semihyaline white, the veins brown, the costal area tinged with brown towards apex; a dark terminal line to vein 3; the underside with the costal area tinged with brown.

Hab. Peru, Uruhuasi (*Watkins*), type † ♀ in Coll. Rothschild. *Exp.* 62 millim.

*1460 *b*. Amastus postflavida.

Amastus postflavidus, Roths. Nov. Zool. xviii. p. 158 (1911), & xix. pl. 5. f. 19.

♀. Head and thorax red-brown; 3rd joint of palpi and antennæ dark brown; abdomen with the hair on basal half red-brown, the other segments yellow with segmental black lines expanding into slight dorsal spots and lateral whitish spots defined by black and with yellow streak below them, the anal segment with large black annulus, the ventral surface red-brown with a greyish tinge. Fore wing red-brown rather thinly scaled especially on discal area; three indistinct red-brown bars across the cell and a darker discoidal patch; a very indistinct postmedial line, oblique to vein 4, then inwardly oblique; the terminal area somewhat darker with an indistinct pale subterminal line slightly incurved at discal fold. Hind wing hyaline tinged with red-brown especially the veins and termen; the underside with the costal area red-brown.

Hab. Colombia, Monte Tolima (*Fassl*), type † ♀ in Coll. Rothschild. *Exp.* 72 millim.

1460 *c*. Amastus flavida. (Plate LIII. fig. 9.)

Amastus flavidus, Dogn. Hét. Nouv. Am. Sud, v. p. 10 (1912).

♂. Head and thorax orange-yellow; palpi brown with yellow patch at side of 2nd joint; frons with brown bars at middle and above; antennæ brownish; tegulæ at base white edged with brown; patagia edged with brown; legs brown; abdomen orange-yellow, the ventral surface grey with sublateral series of yellow spots edged with brown. Fore wing pale red-brown mixed with yellowish and thinly scaled, the veins with minute black striæ; a faint

narrow brown antemedial erect band, defined on inner side by whitish towards inner margin; two faint brownish medial bands, the inner sinuous, the outer oblique, expanding into an obscure patch at costa; a faint brownish postmedial band, incurved below vein 4; a very indistinct waved brownish subterminal line. Hind wing semihyaline white, the veins and margins tinged with brownish ochreous; the underside with the costal area pale red-brown.

Hab. Colombia, Quindin, Tochesito, 1 ♂. Monte Tolima (*Fassl*), type † ♂ in Coll. Dognin. *Exp.* 64 millim.

*1460 *d.* Amastus pseudocollaris.

Amastus pseudocollaris. Roths. A. M. N. H. (8) iv. p. 214 (1909); id. Nov. Zool. xvii. pl. 12. f. 26.

♀. Head, tegulæ, and patagia white, palpi and antennæ dark brown; back of head fulvous; tips of tegulæ fulvous with some blackish scales in front; patagia with fulvous medial stripe; dorsum of thorax fulvous; pectus fulvous, the legs brown; abdomen fulvous orange with lateral series of rather triangular white spots edged with blackish, the ventral surface whitish with sublateral series of orange spots edged with blackish. Fore wing rufous, thinly scaled, the veins black-brown; a fulvous orange spot at base with some slight dark suffusion beyond it; a faint patch of dark suffusion on costa just before middle and a patch just beyond middle with slight oblique shade from it to inner margin; an indistinct oblique dark postmedial band slightly bent inwards to costa and outwards to inner margin; traces of a waved dark subterminal line, bent outwards between veins 7, 6 and angled inwards at discal fold; the termen and cilia rather dark. Hind wing semihyaline whitish tinged with fulvous, the veins fulvous; the underside with the costal area suffused with fulvous.

Hab. Panama, Chiriqui, type † ♀ in Coll. Rothschild. *Exp.* 76 millim.

1461 *a.* Amastus rumina. (Plate LIII. fig. 10.)

Phægoptera aconia, Druce, Biol. Centr.-Am., Het. i. p. 95 (nec Herr.-Schäff.).
Amastus rumina, Druce, A. M. N. H. (7) xviii. p. 84 (1906).

Head and thorax ochreous white; palpi brown edged with grey in front, the 1st joint fringed with orange in front and behind; antennæ fuscous except at base; sides of frons, back of head, tips of tegulæ, streaks on patagia, and sides of thorax orange; pectus and abdomen orange, the latter with dark lateral streaks, the ventral surface whitish except at extremity. Fore wing semihyaline reddish brown, the veins with dark streaks, the base whitish; a narrow pale subterminal band, angled inwards at discal fold. Hind wing hyaline, the margins whitish with a rufous tinge, some orange hair at base.

Hab. Costa Rica (*Van Patten, Underwood*), 2 ♂, 3 ♀, Godman-Salvin Coll. *Exp.* 94 millim.

Differs from *A. aconia* in being darker with no white at extremity of abdomen.

1465 *a*. Amastus palmeri.

Amastus palmeri, Roths. Nov. Zool. xvii. p. 55, pl. 13. f. 24 (1910).

♂. Head and thorax red-brown; palpi blackish at sides; antennæ blackish with the basal joint fulvous; back of head, edges of tegulæ, a stripe at middle of patagia, and the greater part of dorsum of thorax fulvous; pectus fulvous orange, the legs brown; abdomen fulvous orange, the ventral surface brownish grey. Fore wing red-brown, rather thinly scaled, the veins darker, some yellowish at base of inner margin; a faint yellowish bar across end of cell; a faint yellowish postmedial band from below costa, incurved below vein 4 and confluent with the bar across the cell; a faint yellowish subterminal line, excurved below costa and at middle. Hind wing semihyaline ochreous white, the veins and termen pale red-brown.

Hab. W. Colombia, San Antonio (*Palmer*), 1 ♂, type † ♂ in Coll. Rothschild. *Exp.* 62 millim.

*1466 *a*. Amastus drucei.

Amastus drucei, Roths. A. M. N. H. (8) iv. p. 215 (1909); id. Nov. Zool. xvii. pl. 13. f. 14.

♂. Head and thorax red-brown; pectus with some orange; abdomen orange, the ventral surface red-brown. Fore wing reddish brown; a large patch of brownish yellow in, beyond, and below end of cell with the large dark brown discoidal lunule on it and faint traces of a medial brown shade; subterminal line yellow, angled inwards at discal fold, then waved. Hind wing semihyaline brownish white with slight discoidal lunule; the termen and cilia brown; the underside with the costal and terminal areas suffused with ochreous brown.

Hab. Peru, S. Domingo (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 58 millim.

*1466 *b*. Amastus cinnamomea.

Halisidota cinnamomea, Roths. A. M. N. H. (8) iv. p. 221 (1909); id. Nov. Zool. xvii. pl. 12. f. 15.

♀. Head and thorax red-brown slightly mixed with greyish; abdomen pale red-brown. Fore wing yellow suffused and mottled with red-brown leaving some pale striæ on terminal area, the veins with numerous dark brown points except at base, the discocellulars dark; an ill-defined yellow postmedial band from below costa, oblique below vein 4; an ill-defined lunulate subterminal yellow band, angled inwards at discal fold. Hind wing whitish tinged with rufous, the cilia red-brown; the underside with the costa suffused with red-brown.

Hab. Peru, Carabaya, R. Huacamayo (*Ockenden*), type † ♀ in Coll. Rothschild, Limbani, Agualani. *Exp.* 60 millim.

*1466 *c*. Amastus nigrescens.

Halisidota nigrescens, Roths. A. M. N. H. (8) iv. p. 216 (1909); id. Nov. Zool. xvii. pl. 12. f. 31.

♀. Head, thorax, and abdomen black-brown. Fore wing blackish brown, rather thinly scaled, a dentate whitish subterminal line angled inwards in discal fold. Hind wing semihyaline white faintly tinged with brown; the underside with the costal area brown.

Hab. Peru. Carabaya, Agualani (*Ockenden*), type † ♀ in Coll. Rothschild. *Exp.* 62 millim.

*1466 *d*. Amastus muscosa.

Halisidota muscosa, Roths. Nov. Zool. xvi. p. 289 (1909), & xviii. pl. 4. f. 18.

♀. Head and thorax black-brown slightly mixed with grey; abdomen dark brown mixed with grey, the dorsum clothed with reddish brown hair towards base. Fore wing semihyaline very thickly irrorated with black-brown, the inner area and terminal half thickly striated with black-brown; a slight blackish discoidal lunule; a faint dark postmedial shade with waved outer edge, incurved at discal fold and oblique below vein 4. Hind wing semihyaline white faintly tinged with brown; a blackish discoidal point; the underside with the costal area and termen to vein 2 irrorated with brown.

Hab. Peru, Carabaya, Agualani (*Ockenden*), type † ♀ in Coll. Rothschild, Limbani, Cerro de Pasco, Huancabamba. *Exp.* 66 millim.

*1466 *e*. Amastus edapha. (Plate LIII. fig. 12.)

Amastus edaphus, Dyar, Pr. U.S. Nat. Mus. xliv. p. 286 (1913).

♂. Head and thorax grey-brown; tegulæ and patagia near base with black points; legs grey, the fore tibiæ yellow with blue-grey tips; abdomen yellow, the ventral surface grey. Fore wing grey-brown with slight dark mottling, the costa and postmedial area somewhat paler; traces of four diffused lines on basal half and three beyond the cell and a subterminal line; an indistinct whitish discoidal striga. Hind wing with the costal half grey-brown, the inner half yellow, the brown extending at termen to just below vein 3; the underside yellow.

Hab. Mexico, Tehuacan (*Müller*). *Exp.* 80 millim. This species is unknown to me; figured from a drawing from type in U.S. Nat. Mus.

*1466 *f*. Amastus aurantiacus.

Opharus aurantiacus, Roths. A. M. N. H. (8) iv. p. 212 (1909); id. Nov. Zool. xvii. pl. 12. f. 27.

♂. Head and thorax fulvous orange; palpi with the 3rd joint black; tegulæ with pair of black points, the patagia with two

pairs; tibiæ and tarsi with black spots on outer side; abdomen orange-yellow. Fore wing orange-yellow with very numerous striated rufous lines: an indistinct rufous subbasal line excurved below costa, then incurved; an oblique rufous antemedial line with the area before it rather less thickly striated; a triangular blackish discoidal spot with white point in centre and with slight rufous bars before and beyond it; a faint pale postmedial band incurved below vein 4 to below end of cell; a very faint pale subterminal band, incurved below vein 4 and bent outwards to tornus. Hind wing yellow slightly tinged with crimson.

Hab. Costa Rica, in Coll. de Joannis; Peru, Chanchamayo (*Hoffmanns*), type † ♂ in Coll. Rothschild. *Exp.* 72 millim.

*1468 *a*. Amastus tolimensis. (Plate LXVI. fig. 9.)

Amastus tolimensis, Roths. Nov. Zool. xxiii. p. 270 (1917).

♀. Head and thorax bright red-brown; antennæ blackish, tinged with grey towards base; abdomen red-brown tinged with grey; pectus and legs red-brown, the latter tinged with grey. Fore wing bright red-brown, thinly scaled; the discocellulars blackish; a faint pale band just beyond the cell, incurved below vein 4; a pale rather diffused subterminal line, slightly incurved at discal fold. Hind wing hyaline tinged with rufous, especially on inner area and termen; cilia rufous.

Hab. Colombia, Monte Tolima (*Fassl*), type † ♀ in Coll. Rothschild. *Exp.* 78 millim.

*1468 *b*. Amastus lehmanni. (Plate LIII. fig. 11.)

Elysius lehmanni, Roths. Nov. Zool. xvii. p. 46 (1910).

♂. Head, thorax, and abdomen blackish brown; antennæ red-brown. Fore wing uniform reddish brown. Hind wing pure white.

Hab. Colombia, Popayan (*Lehmann*), type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

*1470 *a*. Hyalarctia tepica. (Plate LIII. fig. 13.)

Hyalarctia tepica, Dyar, Pr. U.S. Nat. Mus. xlvii. p. 369 (1914).

Fore wing with veins 6, 7 stalked to near termen (? abnormal).

♂. Head orange-yellow, white behind; antennæ brown, the shaft whitish above towards base; palpi white, the 2nd joint black behind, the 3rd joint black; thorax white, the tegulæ at tips and patagia at base yellow, the former at middle and the patagia near base with small black spots; pectus and legs brownish white, the fore and mid tibiæ and tarsi with black streaks; abdomen ochreous white. Fore wing semihyaline white, the costal edge towards base and veins finely streaked with blackish. Hind wing semihyaline white.

Hab. Mexico, Tepic, Iztapa, type † ♂ in U.S. Nat. Mus. *Exp.* 44 millim.

Genus **PYDNAODES.**

Type.
Pydnaodes, Hmpsn. A. M. N. H. (8) viii. p. 407 (1911) ..... *distincta*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching to middle of frons and broadly scaled, the 3rd short; frons smooth; eyes large, round; antennæ of male bipectinate with moderate branches to apex; fore tibiæ fringed with hair, the hind tibiæ with two pairs of spurs; abdomen with some rough hair at base of dorsum. Fore wing with the apex somewhat produced and acute, the termen evenly curved; vein 3 from before angle of cell; 5 from just above angle; 6 from below upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with vein 3 from angle of cell; 4, 5 shortly stalked; 6, 7 from upper angle; 8 reduced to a spur from middle of cell.

In key differs from *Tricypha* in the hind wing having veins 6, 7 from angle of cell and 8 reduced to a spur from middle of cell.

1471 *a*. Pydnaodes distincta.

Tessellarctia distincta. Roths. A. M. N. H. (8) iv. p. 207 (1909); id. Nov. Zool. xvii. pl. 12. f. 6.

♂. Head and thorax ochreous mixed with rufous, the patagia creamy white; shaft of antennæ whitish towards base, the branches brown; palpi brown at sides; abdomen ochreous dorsally suffused with red-brown. Fore wing ochreous white tinged with rufous and slightly irrorated with brown; a rufous medial patch above vein 1, rounded above, where it is defined by black; a creamy white antemedial band slightly defined by dark scales from costa to the rufous patch, then running along vein 1 to base; postmedial

Fig. 77. - *Pydnaodes distincta*, ♂. ½.

line formed by a yellowish white spot on costa with some blackish scales before it, a slight lunule above vein 6 and oblique striga below it, oblique and slightly defined by black on inner side from vein 5 to the upper edge of the rufous patch, then bent outwards and terminating above vein 1; the inner margin creamy white except towards base, with a dark streak above it on vein 1; subterminal line represented by two creamy white lunules below costa and an oblique streak to the postmedial line at vein 6, strongly defined on outer side by red-brown, and by an oblique lunulate band defined on outer side by blackish spots from vein 5 bent outwards to termen above vein 1; a terminal lunulate band defined by blackish scales. Hind wing yellow suffused with rufous; a brown discoidal lunule and small spot below costa towards apex; a rather diffused brown terminal band, its inner edge incurved from vein 5

to tornus, enclosing some triangular yellowish spots on termen between veins 6 and 2; cilia yellow mixed with rufous; the underside yellowish white with more extensive pale markings on terminal area.

Brazil, Amazons, Fonte Boa (*Klages*), 1 ♂, type † ♂ in Coll. Rothschild. *Exp.* 32 millim.

Genus **HYPIDOTA**.

Type.

Hypidota, Schaus, Trans. Am. Ent. Soc. xxx. p. 137 (1904) ..... *neurias*.

Proboscis aborted, minute; palpi porrect, not reaching beyond the frons; antennæ bipectinate to apex with rather long branches; hind tibiæ with two pairs of spurs. Fore wing rather long and narrow, the apex produced and the termen oblique; vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3 and 5 from angle of cell; 4 absent; 6, 7 shortly stalked; 8 from towards end of cell, not reaching the costa.

In key differs from *Hypomolis* in the hind wing having veins 6, 7 shortly stalked and 8 a spur from the cell.

*1471 *b*. **Hypidota neurias**.

Hypidota neurias, Schaus, Trans. Am. Ent. Soc. xxx. p. 137 (1904).

♂. Ochreous white; antennæ fulvous; outer side of fore coxæ and femora above orange, the inner side of fore legs brown; abdomen orange above except the basal segment. Fore wing with

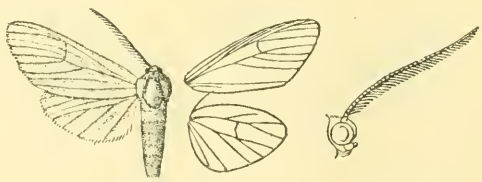

Fig. 78.—*Hypidota neurias*, ♂. ½.

the veins, discal fold in cell, and submedian fold finely streaked with brown.

Hab. Brazil, Castro Paraña, type † ♂ in U.S. Nat. Mus. *Exp.* 42 millim.

1472. **Thalesa citrina**, insert:—

Halisidota albipuncta, Roths. A. M. N. H. (8) iv. p. 221 (1909).

A large form from Ecuador.

Thalesa seruba, parva, Roths. Nov. Zool. xvi. p. 281 (1909).

A small form from the Guianas and Amazons.

*1472 *a*. Thalesa amaxiæformis. (Plate LIII. fig. 14.)

Halisidota amaxiæformis, Roths. Nov. Zool. xvii. p. 68 (1910).

♂. Head and thorax yellow slightly tinged with rufous; abdomen pale yellow. Fore wing yellow slightly tinged with rufous, some rufous on inner area except towards base; an antemedial series of spots defined by rufous, with spots before them below costa and cell; a series of spots in and below end of cell; a postmedial series of spots, oblique below vein 5; a subterminal series of more lunulate spots with a black point at discal fold; a crenulate rufous line just before termen. Hind wing yellowish white.

Hab. Ecuador. R. Cayapas (*Flemming & Miquetta*), type † ♂ in Coll. Rothschild. *Exp.* 34 millim.

Genus **NANNODOTA**.

Type.

Nannodota, Hmpsn. A. M. N. H. (8) viii. p. 407 (1911) ..... *minuta*.

Proboscis fully developed; palpi upturned, reaching to about middle of frons; antennæ of male bipectinate with moderate branches; fore tibiæ fringed with long hair; hind tibiæ with two pairs of spurs. Fore wing long and narrow, the apex rather produced and acute, the termen obliquely curved; vein 3 from angle of cell; 4, 5 strongly stalked; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4, 5 stalked; 8 absent.

In key differs from *Diospage* and *Psychophasma* in the hind wing having veins 3, 4, 5 stalked.

*1472 *b*. Nannodota minuta.

Halisidota minuta, Roths. Nov. Zool. xvii. p. 67, pl. 13. f. 16 (1910).

♂. Head and thorax ochreous yellow mixed with some brown; palpi dark brown behind; tarsi brown at extremities; abdomen pale ochreous yellow. Fore wing ochreous yellow sparsely irrorated with brown; traces of a double oblique subbasal dark brown line from costa to just below the cell; an indistinct double antemedial line, slightly angled at median nervure, then oblique; an ill-defined

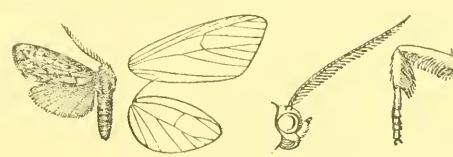

Fig. 79.—*Nannodota minuta*, ♂. ½.

double medial line, bent inwards above inner margin; an ill-defined double postmedial line, oblique and forming obscure lunulate spots below vein 4; a subterminal series of irregular lunulate spots with a blackish mark before the spot above inner margin; slight brown marks at the extremities of the veins; cilia brown. Hind wing pale yellow.

Hab. Peru, Carabaya, La Oroya, type † ♂ in Coll. Rothschild. *Exp.* 26 millim.

Page 145. Genus **HALISIDOTA**, insert:—

	Type.
Phægoptera, Boisd. Lép. Guat. p. 99 (1870), non descr.	*alterata*.

*1473 *a*. Halisidota nero.

Amastus nero, Weym. Iris, xx. p. 27, pl. 2. f. 3 (1907).

♀. Head and thorax dark brown; shaft of antennæ crimson irrorated with black; metathorax with crimson tuft of hair; palpi with the 1st and 2nd joints above and 3rd joint at tip crimson; coxæ, streaks on femora and tibiæ and rings on tarsi crimson; abdomen crimson, the 1st segment, a dorsal patch on 2nd segment, and the ventral surface dark brown; wings uniform dark brown.

Hab. Brazil, Joinville. *Exp.* 58 millim.

*1478 *a*. Halisidota affinis.

Halisidota affinis, Roths. A. M. N. H. (8) iv. p. 216 (1909); id. Nov. Zool. xvii. pl. 13. f. 27.

♂. Head and thorax blackish brown; the terminal half of tegulæ whitish, the patagia whitish except at base and with black spot at middle; antennæ fulvous; femora yellow above; tibiæ and tarsi with some whitish; abdomen yellow dorsally clothed with brown hair to near extremity, ventrally brown mixed with whitish. Fore wing black-brown irrorated with white; a white patch at base; an antemedial maculate white band, angled outwards at median nervure and followed by spots below costa and in and below cell; an oblique medial maculate white band from costa to above vein 1; two small discoidal spots; an oblique postmedial maculate white band, the spots between veins 5 and 3 and at inner margin small and the spot below vein 3 lunulate; a subterminal series of white spots, the spot below vein 7 displaced towards termen; cilia with a series of white spots. Hind wing semihyaline white, the basal and inner areas tinged with brown; a black discoidal spot, small subapical spot and slight subterminal points between veins 6 and 4; the underside with obliquely placed antemedial blackish spots below costa and in cell, a spot on costa above the discoidal spot.

Hab. Mexico, Vera Cruz, Huatuxco, type † ♂ in Coll. Rothschild. *Exp.* 54 millim.

*1478 *b*. Halisidota hyalinipunctata.

Halisidota hyalinipunctata. Roths. A. M. N. H. (8) iv. p. 217 (1909); id. Nov. Zool. xvii. pl. 13. f. 12.

♂. Head and thorax white with black patches and streaks, the pro- and metathorax with some yellow hair; antennæ yellow ringed with black, the branches brown; femora yellow above, the tibiæ and tarsi spotted with black; abdomen yellow, the hair on dorsum of basal half brown, the extremity brown, the ventral surface black

with slight white and yellow bands and sublateral white fasciæ. Fore wing white thickly tessellated with black, the veins streaked with black; a white subbasal band, dentate at median nervure; a maculate white antemedial band angled outwards at median nervure; an oblique maculate medial band, the spots silvery hyaline except at costa and above inner margin, followed by a large spot in end of cell and two small spots below the cell; an oblique postmedial series of spots, the spots silvery hyaline except at costa and inner margin, small towards inner margin; a subterminal series of rather irregular white spots, an oblique spot at apex, all these markings being defined by black; cilia brown with a series of white points except at vein 4. Hind wing semihyaline white with some yellow hair at base and on inner area; the termen and cilia at apex fuscous; the underside with curved black bar from middle of costa, spot on costa at end of cell and slight marks on costa and termen towards apex.

Hab. Peru, Carabaya, Agualani (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 54 millim.

1479. **Halisidota caryæ**, subsp. *mixta* insert (syn.) :—

Halisidota pseudocaryæ, Roths. A. M. N. H. (8) iv. p. 218 (1909).

U.S.A., Arizona, Nogales (*Oslar*), type † ♂ in Coll. Rothschild.

1480. **Halisidota bicolor**, insert (syn.):—

Halesidota indistincta, Barnes & McDunnough, Can. Ent. xlii. p. 210 (1910); id. Contr. Nat. Hist. Lep. N. Am. i. 4. pl. 13. f. 14.

California, Sta. Catalina.

1481 **Halisidota maculata**, insert :—

var. *eureka*, Dyar, Proc. Ent. Soc. Wash. vi. p. 19 (1904).

Entirely suffused with brown, and all the markings obsolete; head and thorax brown with a slightly paler shade on vertex of head and thorax and patagia. Fore wing with the costal and inner areas brown; a discoidal point and broad shade beyond it, the rest of wing pale yellow-brown. Hind wing whitish yellow.

California, Eureka.

Halisidota maculata, texana, Roths. Nov. Zool. xvi. p. 279 (1909).

Similar to subsp. *angulifera* but smaller and paler with the marking of fore wing less prominent.

Texas.

1482. **Halisidota alsus**, insert :—

Halisidota distincta, obsolescens, Roths. Nov. Zool. xvii. p. 58 (1910).

An aberration with the lines of fore wing less distinct.

Colombia, Bogotá, type † ♂ in Coll. Rothschild.

Halisidota distincta, meridionalis, Roths. Nov. Zool. xvii. p. 58 (1910).

A form with the oblique medial band of fore wing more distinct. ARGENTINA, Salta (*Steinbach*), type † ♀ in Coll. Rothschild.

1482*a*. Halisidota distincta.

Halisidota distincta, Roths. Nov. Zool. xvi. p. 280 (1909), & xviii. pl. 5. f. 31.

Head and thorax pale yellow with a slight reddish tinge; frons with black bar above; antennæ with black streak on base of shaft; thorax with some dark brown just behind tegulæ and a dorsal fascia; fore tibiæ and tarsi dark brown, the mid and hind tibiæ with dark brown spots, the tarsi ringed with brown and black at extremities; abdomen pale ochreous dorsally tinged with rufous. Fore wing pale yellow, the veins streaked with orange and irrorated with brown, a black streak on inner margin except towards base; a faint waved rufous subbasal line with black striæ on it, angled outwards below costa and ending at vein 1, double except at costa; a double antemedial line filled in with rufous, broader towards costa and excurved below costa; a double waved medial line, incurved below the cell; a black discoidal mark, narrow above and with whitish lunule in centre; connected with a rufous mark on costa and with an oblique maculate line from it to inner margin; a double oblique irregularly dentate postmedial line with black point on the outer line at discal fold; a double waved subterminal line with black spot on the inner line at discal fold; cilia with a series of small black spots, wholly black towards tornus. Hind wing semihyaline yellowish white.

Hab. VENEZUELA, 1 ♀; PERU, Carabaya, Agualani (*Ockenden*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 54, ♀ 56 millim.

Subsp. *brunnescens*, Roths. Nov. Zool. xvi. p. 280 (1909).

Similar, but fore wing with the markings stronger and more rufous, the fascia on inner margin rufous.

Hab. PERU, Huancabamba, Cerro de Pasco (*Boettger*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 48, ♀ 56 millim.

*1482*b*. Halisidota dognini.

Halisidota dognini, Roths. Nov. Zool. xvii. p. 506 (1910), & xix. pl. 5. f. 18.

Head and thorax yellow tinged with fulvous in front; palpi with black streaks on 1st and 2nd joints behind and point on 3rd joint; frons with lateral black bars; vertex of head with black streak; antennæ brownish; tegulæ with small black spots, the patagia with spots near base and tips; legs banded with black; abdomen ochreous yellow with lateral, sublateral, and ventral black points on medial segments. Fore wing yellow tinged with orange especially on costal and inner margins and the veins, and with numerous small black spots and striæ representing the lines; a quadrate patch of

black suffusion in middle of cell and rounded discoidal patch with a silvery whitish lunule on it ; the postmedial and subterminal lines traceable as double series of irregular black striæ; a terminal series of small black spots. Hind wing pale semihyaline yellow.

Hab. Peru, Carabaya, S. Domingo (*Ockenden*), type † ♂, ♀ in Coll. Rothschild. *Exp.* 48 millim.

*1483 *a*. Halisidota flavescens.

Halisidota flavescens, Roths. A. M. N. H. (8) iv. p. 221 (1909); id. Nov. Zool. xvii. pl. 12. f. 41.

♀. Head, thorax, and abdomen yellow; palpi brownish at tips; antennæ with the branches brownish. Fore wing yellow; the inner margin tinged with red-brown except towards base; a slight red-brown discoidal point and traces of postmedial and subterminal points in submedian fold. Hind wing semihyaline yellowish white.

Hab. U.S.A., S. New Mexico (*Poling*), type † ♀ in Coll. Rothschild. *Exp.* 50 millim.

1483 *b*. Halisidota montana. (Plate LIII. fig. 15.)

Halisidota montana, Schaus, A. M. N. H. (8) vii. p. 184 (1911).

♂. Head, thorax, and abdomen yellow tinged with rufous; fore legs suffused with red-brown; ventral surface of abdomen ochreous white. Fore wing with the apex somewhat produced and falcate; yellow slightly tinged with rufous, the costa and inner margin except towards base suffused with rufous; traces of a maculate antemedial band defined by some brown scales and of a similar oblique band from lower angle of cell to inner margin; a blackish discoidal point; traces of oblique maculate postmedial and subterminal bands faintly defined by brown scales, the former with some slight brown points on its outer edge. Hind wing semihyaline ochreous white.

Hab. Costa Rica, Mt. Poas (*Schaus*), 1 ♂. *Exp.* 42 millim.

*1483 *c*. Halisidota tanamo. (Plate LIV. fig. 1.)

Halisidota tanamo, Schaus, Trans. Am. Ent. Soc. xxx. p. 138 (1904).

♂. Head and thorax pale yellow; branches of antennæ rufous; femora orange above; abdomen orange, the anal tuft and ventral surface pale yellow. Fore wing pale yellow with very indistinct double antemedial, medial, and postmedial waved lines and subterminal dentate line. Hind wing pale yellow, the hair on inner area rather dark.

Hab. Cuba, Tanamo, type † ♂ in U.S. Nat. Mus. *Exp.* 42 millim.

*1483 *d*. Malisidota jonesi.

Halisidota jonesi, Roths. Nov. Zool. xvi. p. 286 (1909), & xviii. pl. 5. f. 29.

♂. Head and thorax pale yellow with rufous streaks on vertex of head and thorax and patagia; palpi behind, frons, and branches of antennæ pale rufous; pectus and legs pale yellow, the fore coxæ and fore legs on inner side rufous; abdomen pale yellow dorsally tinged with rufous. Fore wing pale yellow; a rufous fascia along median nervure and thence obliquely to apex; an antemedial series of irregular spots defined by rufous, bent inwards to costa, the spot in cell connected with a wedge-shaped spot in end of cell with two elongated spots between it and costa; a postmedial series of bidentate spots defined by rufous, very oblique below vein 5; a subterminal series of bidentate spots defined by rufous and with rufous annuli on their outer sides. Hind wing creamy white.

Hab. Brazil, Castro Paraña (*D. Jones*), type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

*1485 *a*. Halisidota mœschleri.

Halisidota mœschleri, Roths. Nov. Zool. xvi. p. 280 (1909), & xviii. pl. 5. f. 28.

Head, thorax, and abdomen ochreous strongly tinged with rufous; palpi with blackish patch at side of 2nd joint; tegulæ with black points. Fore wing ochreous strongly tinged with rufous; a very ill-defined double dentate subbasal line formed by black scales, a similar but rather more distinct antemedial line, the lines further apart towards costa; a similar line just beyond the cell, incurved at discal fold and below vein 3; a similar postmedial line angled outwards at veins 4, 3; a slight dentate line formed by black scales just before termen. Hind wing pale semihyaline reddish ochreous.

Hab. Jamaica, type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 38, ♀ 44 millim.

*1485 *b*. Halisidota grotei. (Plate LIV. fig. 2.)

Halisidota grotei, Schaus, Trans. Am. Ent. Soc. xxx. p. 138 (1904).

♂. Pale ochreous yellow; palpi brownish at sides; femora orange above; tibiæ and tarsi with black points; abdomen with lateral series of blackish marks. Fore wing rather sparsely irrorated with fuscous points, some of them forming obscure double minutely waved subbasal lines from costa to vein 1, antemedial curved lines, medial patch from cell to submedian fold, medial line somewhat angled outwards below costa and beyond lower angle of cell, postmedial and subterminal lines, the antemedial lines, medial patch and medial lines with some fuscous suffusion on costal half. Hind wing with traces of subterminal band formed of fuscous irroration.

Hab. Cuba, Tanamo, type † ♂ in U.S. Nat. Mus. *Exp.* 38 millim.

1486. Halisidota lurida, insert (syn.) :-

Euhalisidota otho, Barnes & McD. Can. Ent. xxxiii. p. 53 (1901); id. Contr. Nat. Hist. Lep. N. Am. i. 4, pl. iv. f. 3.

*1486 *a*. Halisidota pseudoconiata.

Halisidota pseudoconiata Roths. Nov. Zool. xvi. p. 286 (1909), & xviii. pl. 5. f. 30.

♂. Head and thorax pale yellowish slightly tinged with reddish brown; antennæ with the branches reddish brown; palpi and lower part of frons dark brown; fore femora and tibiæ and the tarsi at extremities dark brown; abdomen pale yellowish dorsally slightly tinged with brown. Fore wing pale yellowish; an indistinct double maculate curved brown antemedial line; a patch of pale brown suffusion below middle of cell; a brown-defined spot below middle of costa and elongate spot in end of cell; a black spot at lower angle of cell and smaller spot at upper angle; a wedge-shaped pale streak defined by brown beyond the cell, and a postmedial series of dentate spots, oblique below vein 4; a subterminal series of dentate spots and a dentate brown line just before termen; two obliquely placed black subapical spots and a streak below vein 6. Hind wing uniform yellowish white.

♀. Fore wing with the markings more distinct; hind wing with small brown subterminal spot in discal fold and series of small brown annuli just before termen.

Hab. Peru. Carabaya, Aguakani (*Ockenden*), type † ♂ in Coll. Rothschild, Limbani. *Exp.*, ♂ 42, ♀ 46 millim.

1486 *b*. Halisidota maroniensis. (Plate LIV. fig. 3.)

Halisidota maroniensis. Schaus, Pr. U.S. Nat. Mus. xxix. p. 223 (1905).
Halisidota buchwaldi. Roths. Nov. Zool. xvii. p. 67 (1910).

Ochreous; palpi tinged with brown towards base; tibiæ and tarsi banded with brown; abdomen slightly irrorated with brown, the ventral surface whitish irrorated with brown. Fore wing very narrow with about ten irregularly waved oblique brown lines arising from small dark costal spots, a dark spot on the inner subterminal line above vein 5, the outer subterminal line produced to a series of small dark terminal spots in the interspaces. Hind wing narrow, semihyaline ochreous.

Hab. Fr. Guiana, St. Jean Maroni (*Schaus*), 1 ♂, S. Laurent Maroni 2 ♀; Brazil, Amazons, S. Antonio do Javary, Fonte Boa (*Klages*), type † ♂ *buchwaldi* in Coll. Rothschild. *Exp.* 34 millim.

*1487 *a*. Halisidota contempta. (Plate LIV. fig. 4.)

Halisidota contempta. Roths. Nov. Zool. xvi. p. 288 (1909).

♂. Head and thorax ochreous white, the head and tegulæ slightly tinged with brown, the thorax with dorsal black streak; abdomen ochreous white, dorsally slightly tinged with dorsal brown except at base. Fore wing ochreous white slightly tinged with reddish brown; a

subbasal brown point below costa; traces of a curved dentate brown antemedial line; the medial area with some brownish points below costa and in cell; a slight streak above median nervure and diffused streak on vein 1; a blackish point at lower angle of cell; an indistinct very oblique postmedial punctiform brown line; traces of a series of highly dentate subterminal spots slightly defined by brown on inner and outer sides conjoined to traces of a waved line just before termen; slight oblique brown striæ from apex to vein 5. Hind wing ochreous white with a small subterminal patch of reddish brown suffusion between vein 3 and submedian fold; the underside with some brown at apex.

Hab. Brazil, Up. Amazon, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 32 millim.

*1487 *b*. Halisidota nonagrioides.

Halisidota nonagrioides, Roths. Nov. Zool. xvii. p. 64. pl. 13. f. 19 (1910).

♀. Head and thorax pale ochreous yellow; abdomen orange-yellow, ochreous whitish at extremity and on ventral surface. Fore wing ochreous yellow; the median nervure brownish; indistinct oblique postmedial and subterminal series of very dentate lunulate marks defined by brownish. Hind wing semihyaline ochreous white.

Hab. Venezuela, Caracas, type † ♀ in Coll. Rothschild, Valencia, Merida; Peru, Oconeque; Brazil, Minas Geraes, São Paulo; Paraguay, Sapucay. *Exp.* 52 millim.

*1487 *c*. Halisidota dinelli.

Halisidota dinellii, Roths. Nov. Zool. xvi. p. 282 (1909), & xviii. pl. 5. f. 32.

♂. Head and thorax pale ochreous tinged with red-brown; palpi and frons tinged with fuscous; legs greyish brown; abdomen greyish ochreous, the ventral surface grey-brown. Fore wing brownish ochreous irrorated with dark brown points; a small blackish spot at lower angle of cell; a postmedial series of slight brown spots, oblique below vein 4; a subterminal series of slight dentate brown marks with a prominent blackish spot at discal fold, the series connected with a very indistinct dentate line just before termen. Hind wing semihyaline ochreous white with slight brown marks just before termen from apex to discal fold; the underside with the costal area slightly irrorated with brown.

Hab. Argentina, Tucuman, La Hayada (*Dinelli*), type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

*1487 *d*. Halisidota terranea.

Halisidota terranea, Roths. A. M. N. H. (8) iv. p. 218 (1909); id. Nov. Zool. xvii. pl. 12. f. 18.

♂. Head and thorax ochreous slightly mixed with brown; palpi reddish brown towards base; branches of antennæ red-brown;

fore legs suffused with brown; abdomen ochreous dorsally suffused with brown. Fore wing ochreous irrorated with brown; traces of a brown antemedial line oblique from costa to a diffused brown patch in the cell, inwardly oblique below submedian fold; two blackish discoidal points with a slight annulate brown mark above them on costa; postmedial line very indistinct, double, dentate, angled inwards above and below vein 6 and outwards at vein 4, then oblique; a very indistinct subterminal series of dentate marks with dark brown points on their outer edge, the points above and below vein 6 obliquely placed, the series excurved at middle; cilia ochreous white. Hind wing ochreous suffused with reddish brown except in and beyond the cell, the terminal area darker from apex to vein 2; cilia ochreous white; the underside pale ochreous, the termen suffused with brown from apex to submedian fold.

Hab. Brazil, Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild, San Ernesto, R. Napo, Coca, R. Tiputini. *Exp.* 40 millim.

1488 *a*. **Halisidota cirphis.** (Plate LIV. fig. 5.)

Halisidota cirphis, Schaus, A. M. N. H. (8) vii. p. 185 (1911).

♂. Head and thorax ochreous tinged with rufous; palpi brown at tips; antennæ with the branches rufous; fore femora on inner side and tarsi at extremities fuscous; abdomen ochreous dorsally suffused with brown. Fore wing ochreous sparsely irrorated with brown; some antemedial brown points from below costa to submedian fold, angled outwards at median nervure; a blackish spot at lower angle of cell; a postmedial series of dentate spots defined by brown scales, angled inwards at discal fold, where there is a blackish spot before it, and oblique below vein 4; a subterminal series of dentate spots defined by brown scales and with blackish points on their outer edge; a slight crenulate line formed of brown scales just before termen. Hind wing ochreous, the veins of inner half and the inner area suffused with brown; subterminal blackish points below apex and at discal fold; the underside with the costal area irrorated with brown.

Hab. Costa Rica, Tuis (*Schaus*). 1 ♂. *Exp.* 42 millim.

*1489 *a*. **Halisidota lua.** (Plate LIV. fig. 6.)

Halisidota lua, Dyar, Pr. U.S. Nat. Mus. xxxviii. p. 234 (1910).

♂. Head and thorax ochreous tinged with dull brown; abdomen brownish, the extremity ochreous. Fore wing ochreous, the inner half of medial area shaded with brown; the inner margin with brown streak; an indistinct slightly curved antemedial series of small pale spots defined by brown; an oblique postmedial series of small pale spots defined by brown, the spots above veins 4 and 3 dentate; a subterminal series of small pale spots defined by brown;

cilia with a brown line through them. Hind wing ochreous, the inner and terminal areas suffused with brown; a faint discoidal shade; the underside with the shadings better defined.

Hab. Mexico, Zacualpan (*Müller*). *Exp.* 44 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

1489 *b*. Halisidota liparoides. (Plate LIV. fig. 7.)

Halisidota liparoides, Roths. Nov. Zool. xvi. p. 287 (1909).

♂. Head and thorax pale ochreous slightly mixed with brown; palpi black behind; tarsi black at extremities; abdomen fulvous yellow, the base, anal tuft, and ventral surface pale ochreous. Fore wing pale ochreous slightly irrorated with fuscous and in parts tinged with red-brown, the basal area and an irregular patch in end of cell paler; traces of a double dentate antemedial line, excurved at median nervure: postmedial line formed of very indistinct dentate marks defined by fuscous, oblique below vein 4; a subterminal series of rather more distinct dentate marks connected with a dentate line just before termen. Hind wing ochreous yellow, the apical half of terminal area paler; a diffused fuscous brown terminal band from vein 3 to tornus, formed of somewhat lunulate marks; the underside similar with slight fuscous marks on apical part of costa and subterminal point in discal fold.

Hab. Surinam, Maroewyn Valley, Aroewarwar Creek (*Klages*), type † ♂ in Coll. Rothschild; Brazil, Up. Amazons, Fonte Boa; Peru, Carabaya, R. Huacamayo, La Union, Chaquimayo (*Watkins*). 2 ♂. *Exp.* 46 millim.

1489 *c*. Halisidota subterranea.

Halisidota subterranea, Roths. Nov. Zool. xvi. p. 281 (1909), & xviii. pl. 5. f. 21.

Head and thorax pale yellowish mixed with brown; palpi with the 2nd joint fuscous behind; fore femora and tibiæ fuscous on inner side, the tarsi fuscous with pale rings; abdomen fuscous brown, the base, extremity, and ventral surface pale yellowish. Fore wing pale yellowish sparsely irrorated with dark brown, the costal area with some small blackish spots: an indistinct irregularly waved dark antemedial line, double from costa to submedian fold and excurved in cell, some brown suffusion beyond it from costa to median nervure; an obscure dark-defined spot in upper extremity of cell and a black spot at lower angle; an obscure postmedial brown shade, oblique from costa to just beyond lower angle of cell, then incurved and angled outwards at vein 1; a subterminal series of dentate spots defined by dark scales and slight lunules on inner and outer sides; a terminal series of small black spots. Hind wing pale yellowish, the whole inner half and a broad subterminal band fuscous

brown; the underside with subterminal series of diffused dentate brown marks except towards tornus and slight brown suffusion on inner area.

Hab. Peru, Carabaya, S. Domingo (*Ockenden*), type † ♂ in Coll. Rothschild, Oconeque, R. Inambari, La Oroya, Yahuarmayo. 1 ♀. *Exp.*, ♂ 42, ♀ 50 millim.

*1489 *d.* Halisidota cuneipuncta.

Halisidota cuneipuncta, Roths. Nov. Zool. xvi. p. 287 (1910), & xviii. pl. 5. f. 33.

♂. Head and thorax pale ochreous tinged with red-brown; palpi fuscous in front towards tips; pectus and legs ochreous white; abdomen brownish ochreous, the ventral surface white. Fore wing pale ochreous suffused in parts with red-brown, the veins red-brown; an obscure antemedial series of ochreous spots defined by brown, the spot in cell elongate and connected with a lunulate spot in end of cell; a postmedial series of obscure dentate ochreous spots defined by brown, oblique from costa to just beyond the cell and again from vein 5 to inner margin; a subterminal series of extremely strongly bidentate spots connected with a series of bidentate spots on termen; a fine red-brown terminal line. Hind wing pale ochreous tinged with red-brown except the cell and costal area; the underside pale ochreous with diffused red-brown patches in interspaces of terminal area from apex to vein 1.

Hab. Mexico, Vera Cruz, type † ♂ in Coll. Rothschild. *Exp.* 48 millim.

1490. Halisidota bactris, insert (syn.):—

Halisidota luridioides, Roths. Nov. Zool. xxiv. p. 482 (1917).

Colombia, Monte Tolima (*Fassl*), type † ♂ in Coll. Rothschild, R. Cachabi, S. Javier.

*1490 *a.* Halisidota falacroides.

Halisidota falacroides, Roths. Nov. Zool. xvi. p. 281 (1909), & xviii. pl. 5. f. 20.

♂. Head and thorax pale ochreous slightly tinged with brown, the tegulæ and patagia near base with black points; palpi blackish at sides; antennæ with the branches brown; fore coxæ suffused with fuscous; abdomen fuscous brown, the extremity and ventral surface pale ochreous. Fore wing ochreous suffused with red brown; slight pale streaks below base of costa and cell and in lower extremity of cell; a black point at lower angle of cell; very indistinct spots defined by brown between lower angle of cell and inner margin, the mark above vein 2 oblique and elongate, and slight postmedial dentate marks above and below vein 7 and between veins 5 and 3; the interspaces of terminal area with long bidentate

pale marks defined by brown, the mark in discal fold extending to the discocellulars; the veins slightly streaked with brown; a fine red-brown terminal line; cilia pale ochreous. Hind wing ochreous suffused with brown except the costal area, cell, and area just beyond it; the underside pale ochreous with diffused brown patches in interspaces of terminal area from apex to submedian fold.

Hab. Ecuador, R. Cachabi, St. Xavier; Peru, Carabaya, S. Domingo, Cerro de Pasco, Huancabamba (*Boettger*), type † ♂ in Coll. Rothschild. *Exp.* 54 millim.

*1490 *b*. Halisidota affinis.

Halisidota affinis, Roths. Nov. Zool. xvi. p. 280 (1909), & xviii. pl. 5. f. 17.

♂. Head, tegulæ, and front of thorax pale brown, the hinder part of thorax with yellowish mixed; vertex of head and tegulæ with slight black streaks, the patagia with points at base; palpi blackish brown, the frons with black spots at sides; fore legs fuscous on inner side, the mid and hind tarsi mostly fuscous; abdomen fuscous brown, the anal tuft and ventral surface pale yellowish. Fore wing pale ochreous yellow suffused with brown, the basal inner area paler; traces of a dentate antemedial maculate band, oblique below the cell; two slight elongate marks in upper extremity of cell; a postmedial series of dentate yellowish spots defined by dark brown, slight and oblique below vein 4; a subterminal series of dentate yellow spots defined by dark brown, angled inwards at discal fold and oblique below vein 5, the teeth extending to the fine brown terminal line. Hind wing pale yellowish suffused with brown except on costal area and in and beyond the cell; cilia pale yellowish; the underside pale yellowish with a diffused brown terminal band.

♀. Paler; fore wing with the markings less distinct.

Hab. Peru, Carabaya. Tinguri (*Ockenden*), type † ♂ in Coll. Rothschild, S. Domingo. *Exp.*, ♂ 56. ♀ 62 millim.

*1490 *c*. Halisidota hoffmannsi.

Halisidota hoffmannsi, Roths. A. M. N. H. (8) iv. p. 222 (1909); id. Nov. Zool. xvii. pl. 12. f. 42.

♂. Head and thorax ochreous yellow, the head and tegulæ slightly tinged with red-brown, the tegulæ and patagia with small dark brown spots; palpi and frons at sides red-brown; antennæ with the branches red-brown; fore femora and tibiæ red-brown on inner side, the tarsi brown at extremities; abdomen red-brown, the extremity and ventral surface ochreous. Fore wing ochreous slightly irrorated with red-brown; an indistinct brown antemedial line, oblique to median nervure, then inwardly oblique; an oblique red-brown fascia from apex expanding into a wedge-shaped patch on vein 1 where it terminates and extends from the antemedial to the postmedial line, its upper edge dark and slightly sinuous towards

apex, a small yellow spot on it below vein 2; an elliptical blackish spot at lower angle of cell and point at upper angle; postmedial line represented by slight dark marks towards costa and a very oblique series of slight dentate pale marks between veins 5 and 1 near the outer edge of the rufous fascia; faint traces of a subterminal series of dentate pale marks, with red-brown spots on their outer side between veins 5 and 1; some slight brown points at extremities of the veins. Hind wing ochreous, the inner half suffused with rufous; an indistinct irregular rufous subterminal band, bent outwards and narrowing to apex, dentate to termen on the veins and defining a terminal series of yellow lunules, the underside with the red-brown markings reduced.

Hab. PERU, Huanuco, Pozuzo (*Hoffmanns*), type † ♂ in Coll. Rothschild. *Exp.* 48 millim.

1490 *d*. Halisidota notodontina.

Halisidota notodontina, Roths. Nov. Zool. xvii. p. 188, pl. 14. f. 28 (1910).

♂. Head and thorax very pale yellow, the head and tegulæ with some pale brown mixed; palpi dark brown behind except towards tips; abdomen very pale yellow, dorsally suffused with brown except at base and extremity. Fore wing very pale yellow suffused and irrorated with brown, leaving an oblique pale yellow patch on basal inner area, patches in middle and end of cell, a spot beyond the cell in discal fold, a spot below end of cell below vein 2; and the terminal area pale yellow except towards apex; antemedial pairs of blackish points on and below costa; a slight spot at middle of cell above median nervure and a spot at lower angle; some points on terminal half of costa; traces of oblique postmedial and subterminal series of lunulate spots and of an oblique yellow fascia from apex to the postmedial spot in discal fold. Hind wing pale yellow; a large brown terminal patch between veins 3 and 1, produced towards apex as a subterminal band with waved edges and a spot above vein 5, the inner edge of the patch rounded and emitting a slight streak on vein 2.

Hab. PERU, Huancabamba (*Boettger*), type † ♂ in Coll. Rothschild, Chaquimayo (*Watkins*), 1 ♂. *Exp.* 54 millim.

*1490 *e*. Halisidota turrialba. (Plate LIV. fig. 8.)

Halisidota turrialba, Schaus, A. M. N. H. (8) vii. p. 185 (1911).

♂. Head and thorax yellow with some rufous mixed, the thorax with red-brown dorsal streak; palpi at tips, frons, and antennæ brown; pectus pale yellow; fore legs brown on inner side; abdomen dark brown, the anal tuft and ventral surface pale yellow. Fore wing yellow; a diffused rufous subbasal shade, angled outwards below costa and ending at submedian fold, a black point on its outer edge below costa; a rufous antemedial shade with waved edges and black points on its inner and outer sides below costa,

joined at median nervure by an oblique rufous fascia from apex, and with a rufous patch between it and the postmedial line in submedian interspace; an oblique rufous band from costa to lower angle of cell with two yellow spots before it in the cell, the lower elongate; a yellow spot beyond upper angle of cell and obliquely placed lunulate spots below veins 4, 3, and 2, the last with point above it below the cell and point below it; an indistinct oblique dentate rufous postmedial line with series of lunulate yellow spots beyond it defined on outer side by slight rufous marks; a slight crenulate rufous line just before termen and terminal series of black striæ. Hind wing brown, the costal area, termen to vein 3, and inner margin yellow; a brown subapical point and two points on apical part of termen; the underside with the brown area pale.

Hab. Costa Rica, Turrialba (*Schaus*). type † ♂ in U.S. Nat. Mus. *Exp.* 62 millim.

*1490*f.* Halisidota oblonga.

Halisidota oblonga, Roths. A. M. N. H. (8) iv. p. 218 (1910); id. Nov. Zool. xvii. pl. 13. f. 13.

Head and thorax yellow with brown marks between antennæ, on vertex of head, and on tegulæ; palpi with brownish streaks at sides, the pectus with brown streak in front, the fore femora orange above, the tibiæ and tarsi streaked with brownish; abdomen orange-yellow, the ventral surface pale yellow. Fore wing pale yellow irrorated with reddish brown; an oblique pale brown fascia from apex expanding below the cell into a large wedge-shaped patch and extending to before middle; traces of a dentate antemedial line followed by three dark points below the costa; some obscure yellow spots in and at end of cell; an oblique postmedial series of dentate yellow marks defined by brown from costa to beyond end of cell and an oblique subterminal series from below apex to above inner margin; a crenulate line just before termen and terminal series of points. Hind wing pale ochreous yellow; two small brownish subapical spots.

Hab. Peru, Carabaya, S. Domingo (*Ockenden*), type † ♂ in Coll. Rothschild, Oconeque. *Exp.*, ♂ 54, ♀ 62 millim.

*1490*g.* Halisidota quadrata. (Plate LIV. fig. 9.)

Halisidota quadrata, Roths. Nov. Zool. xvii. p. 65 (1910).

♂. Head and thorax yellow mixed with some rufous; palpi rufous at sides; antennæ with the branches rufous; fore legs rufous on inner side, the mid and hind tarsi tinged with rufous; abdomen yellow dorsally tinged with rufous. Fore wing yellow irrorated and in parts tinged with rufous, the costal area with series of blackish points; traces of an antemedial series of dentate spots defined by red-brown; a diffused rufous shade on discocellulars met at lower angle of cell by an oblique shade from apex; an oblique series of

dentate spots defined by red-brown from lower angle of cell to inner margin; a postmedial series of dentate spots, oblique below vein 1; a subterminal series of dentate spots with blackish points on their outer edges; a fine crenulate red-brown line just before termen. Hind wing pale yellow with a diffused brownish fascia below vein 2 and series of faint brownish spots before termen from apex to submedian fold; the underside pale yellow with brownish subterminal spots below veins 3 and 2.

Hab. Peru, Carabaya, Oconeque, Limbani (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 54 millim.

*1490 *h*. Halisidota epinephete, n. n.

Halisidota nebulosa, Roths. Nov. Zool. xvii. p. 66 (1910), & xviii. pl. 4. f. 39 (nec Roths. 1909).

♂. Head and tegulæ pale ochreous slightly mixed with brown; thorax yellowish white; palpi black behind; tarsi blackish at extremities; abdomen yellowish white dorsally tinged with brown. Fore wing narrow; ochreous white; the costa with dark striæ; traces of an antemedial series of elongate spots slightly defined by brown; patches of brown irroration on costal area at middle and end of cell; a fine oblique brown streak from apex to lower angle of cell; a postmedial series of small dentate spots slightly defined by brown, very oblique below vein 4; a subterminal series of dentate spots defined by brown, confluent with a crenulate line just before termen, the extremities of the veins with slight dark streaks. Hind wing yellowish white; the underside with slight brownish spot on costa near apex.

♀. Paler; fore wing with the markings less distinct, a black point at lower angle of cell.

Hab. Brazil, Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild, R. Madeira, Allianca, Calama; Peru, Carabaya, La Union; Bolivia, San Ernesti. *Exp.*, ♂ 38, ♀ 46 millim.

*1491 *a*. Halisidota lacteogrisea. (Plate LIV. fig. 10.)

Halisidota lacteogrisea, Roths. Nov. Zool. xvi. p. 288 (1909).

♂. Head and thorax ochreous yellow mixed with some brown; palpi with the 2nd joint fuscous behind and with band at middle; frons with blackish bar; vertex of head, tegulæ, and patagia with blackish streaks, the prothorax with black mark; fore femora black-brown above, the fore tibiæ with blackish points, the tarsi ringed with black and black at extremities; abdomen ochreous yellow dorsally suffused with brown except at base and extremities, a lateral series of blackish spots. Fore wing ochreous yellow tinged in parts with red-brown and irrorated with dark brown, the costal area with black points; an oblique subbasal blackish line from costa to submedian fold; traces of a dentate antemedial line with some black points on it; a black point at lower angle of cell; traces of a

dentate postmedial line, bent outwards below costa, then oblique, more clearly marked with black towards costa; a subterminal series of dentate marks defined by blackish and with black points on their outer sides; a dentate line just before termen; the termen and cilia pale yellow, the latter with a series of prominent black points at base. Hind wing pale yellow suffused with reddish brown except on costal area and apical part of termen; two small subterminal brown marks below apex; a series of black points at base of cilia from apex to vein 2; the underside pale yellow, the costal area slightly irrorated with brown, a brown discoidal point and subterminal point in discal fold.

Hab. Venezuela, Caura R., La Vuelta (*Klages*). type † ♂ in Coll. Rothschild. *Exp.* 44 millim.

*1492 *a*. Halisidota umbrina.

Halisidota umbrina, Roths. Nov. Zool. xvii. p. 68 (1910), & xix. pl. 5. f. 2.

Hind tibiæ of male fringed with hair on inner side and with a tuft of long hair from base.

♂. Head and thorax fulvous yellow mixed with red-brown; abdomen dark brown; pectus, hind legs, and ventral surface of abdomen ochreous white. Fore wing fulvous yellow mostly suffused with red-brown; a small subbasal dark spot on median nervure; an ill-defined yellow antemedial band, oblique below the cell and conjoined to a spot in middle of cell; an ill-defined yellow maculate medial band from below costa to inner margin, with a spot on costa beyond it; a small yellow spot at upper angle of cell and black spot at

Fig. 86.—*Halisidota umbrina*, ♂. ½.

lower angle, a series of slight yellow spots from below end of cell to inner margin more or less confluent with the medial band; a postmedial yellow band from costa to below vein 6 and small spots above and below vein 4; a subterminal series of small lunulate yellow spots defined on outer side by blackish, excurved between veins 6 and 3 and the spot above vein 6 displaced inwards; a terminal series of small lunulate yellow spots with black spots beyond them on the yellow cilia. Hind wing dark brown with some yellow on basal half of inner margin; the underside paler with the costal area ochreous.

Hab. Brazil, Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 34 millim.

1493 *a*. Halisidota androlepia.

Halisidota androlepia, Dogn. Ann. Soc. Ent. Belg. lii. p. 155 (1908).
Halisidota sobrinoides, Roths. Nov. Zool. xvii. p. 69, pl. 13. ff. 11, 26 (1910).

Fore wing of male with streak of androconia on subcostal nervure on underside.

♂. Head, thorax, and abdomen bright orange-yellow, the 1st and 2nd joints of palpi, the head between antennæ and on vertex, the tegulæ, shoulders, and patagia with black points; tibiæ and tarsi with black spots. Fore wing bright orange-yellow, the interspaces of discal area rather paler; a black point at base of costa and subbasal points on costa and below the cell; numerous small brown lunules

Fig. 81.—*Halisidota androlepia*, ♂. ½.

forming ill-defined double minutely dentate subbasal, antemedial, medial, postmedial, and subterminal bands, the three last oblique, and all with more or less developed black marks on them at costa and inner margin; a diffused black discoidal spot and small black spot on subterminal line at discal fold; a series of small black spots on termen and cilia. Hind wing pale semihyaline yellow.

Hab. Colombia; Venezuela; Surinam; Brazil, Amazons; Ecuador, Loja, 1 ♂, type † ♂ in Coll. Dognin; Peru, Carabaya, Tinguri (*Ockenden*), type † ♂ *sobrinoides* in Coll. Rothschild, Chanchamayo, 1 ♂; Bolivia. *Exp.* 44 millim.

*1495 *a*. Halisidota bricenoi.

Halisidota bricenoi, Roths. Nov. Zool. xvi. p. 282 (1909), & xvii. pl. 11. ff. 28, 29.

Differs from the male of *H. atra* in the head, thorax, and fore wing of both sexes being brown, the palpi with orange bands on 1st and 2nd joints, the pectus and legs more orange; the fore wing with the postmedial and terminal bands distinct, the discoidal patch sometimes connected with the medial band.

Hab. Venezuela, Merida, type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 50, ♀ 56 millim.

*1495 *b*. Halisidota fuliginosa.

Halisidota fuliginosa, Roths. Nov. Zool. xvi. p. 282 (1909), & xvii. pl. 11. ff. 1, 2.

♂. Differs from *H. atra* in head and thorax being paler, the palpi with orange bands on 1st and 2nd joints, the pectus, legs, and

ventral surface of abdomen more orange; fore wing yellow-brown, the discoidal patch separated from the costal spot, the postmedial spots and terminal band distinct.

♀. Abdomen black-brown above as in male.

Hab. Mexico, Cuernadaca: Peru, S. Domingo, Carabaya, type † in Coll. Rothschild. *Exp.*, ♂ 50, ♀ 60 millim.

1496 *a*. Halisidota underwoodi.

Halisidota underwoodi, Roths. Nov. Zool. xvi. p. 284 (1909), & xvii. pl. 11. ff. 3, 4.

Differs from *H. interlineata* in the ventral surface of abdomen having black spots except on basal segments; fore wing brownish buff, the costal patches fulvous with narrow black margins, the discoidal patch with narrow black centre, touching or almost touching the medial band below the costa: hind wing brownish semihyaline buff.

Hab. Mexico, Jalapa, type † in Coll. Rothschild. Vera Cruz, Orizaba: Costa Rica, Tuis, San José: Peru, Chanchamayo, Carabaya, R. Huacamayo. *Exp.* 52–60 millim.

Subsp. 1. *instabilis*, Dyar, Pr. U.S. Nat. Mus. xlii. p. 53 (1912).

Fore wing with the subterminal band between veins 5 and 4 and on inner margin reduced to spots on costa.

Hab. Mexico, Cuernavaca.

Subsp. 2. *orientalis*, Roths. Nov. Zool. xvi. p. 284 (1909), & xvii. pl. 11. ff. 30, 31.

Smaller and paler.

Hab. Trinidad (*Kaye*), 1 ♂, 3 ♀. Caparo, Port of Spain, type † in Coll. Rothschild, Tabaquito; Br. Guiana; Brazil, 1 ♂.

Subsp. 3. *modalis*, Dyar, Pr. U.S. Nat. Mus. xlii. p. 53 (1912).

Fore wing yellowish, the bands ochreous brown.

Hab. Venezuela, 1 ♀.

1496. Halisidota interlineata, insert:—

Subsp. *intensa*, Roths. Nov. Zool. xvi. p. 283 (1909), & xvii. pl. 11. ff. 12, 13.

A large form 58–68 millim. from Costa Rica, Venezuela, and Peru; fore wing with the postmedial maculate band present.

1497. Halisidota cinctipes, insert:—

Halisidota carinator, Dyar, Pr. U.S. Nat. Mus. xlii. p. 51 (1912).

Hab. Mexico, Jalapa (*Hoege*), 4 ♂, Orizaba, Coatepec (*Brooks*), 1 ♂: Guatemala City (*Rodriguez*), 1 ♀; Costa Rica; Cuba, Guatel.

Subsp. 1. *schausi meridensis*, Roths. Nov. Zool. xvi. p. 285 (1909), & xvii. pl. 11. ff. 23. 24.

Much darker; fore wing with the subterminal band less interrupted.

Hab. Venezuela, Merida, type † in Coll. Rothschild.

Subsp. 2. *fumosa*, Schaus, A. M. N. H. (8) ix. p. 38 (1912).

Similar to *meridensis*, but the hind wing tinged with brown.

Hab. Costa Rica: W. Colombia, R. Dagua, 1 ♂.

Subsp. 3. *schausi tucumana*, Roths. Nov. Zool. xvi. p. 285 (1909). & xvii. pl. 11. ff. 16. 17.

Paler; fore wing with the subterminal band entire: hind wing semihyaline white.

Hab. Argentina. Tucuman (*Steinbach*). type † ♂, ♀ in Coll. Rothschild.

1497 *a*. Halisidota steinbachi.

Halisidota steinbachi, Roths. Nov. Zool. xvi. p. 283 (1909). & xvii. pl. 11. ff. 25. 26.

♂. Head and thorax pale ochreous tinged with grey-brown; palpi orange at sides with grey patches edged with black at base of 1st and 2nd joints, the latter black above and at extremity, the 3rd joint grey and black at base; frons with lateral triangular black patches: antennæ blackish, orange towards base: patagia with black streak towards outer edge: femora orange above, the tibiæ and tarsi and the hind femora with grey and black bands: abdomen orange, the ventral surface ochreous white with lateral series of black striæ. Fore wing ochreous white tinged with brown; subbasal and antemedial black-irrorated patches from costa to median nervure conjoined to a wedge-shaped patch below the cell, edged with black and the veins on them streaked with black: a minute antemedial black-edged spot on vein 1: a medial band edged by black lines and with the veins on it streaked with black, its inner edge bent inwards at subcostal nervure and angled inwards at submedian fold and to inner margin, its outer edge sinuous: a black-edged patch from costa to lower angle of cell, with black streaks on it below costa and the discocellulars and extremity of median nervure black, its edges somewhat angled outwards below costa; postmedial line fine, black, angled outwards at the veins, incurved at discal fold and below vein 4: a black-edged subterminal band angled outwards at the veins and incurved at discal and submedian folds. Hind wing semihyaline yellowish, the inner margin more orange, two small brown-edged spots on apical part of termen.

Hab. Argentina, La Rioja (*Giacomelli*), 1 ♂. Tucuman (*Steinbach*), type † ♂ in Coll. Rothschild, Salta. *Exp.* 54 millim.

1497 *b*. Halisidota schausi.

Halisidota schausi, Roths. Nov. Zool. xvi. p. 284 (1909). & xvii. pl. 11. ff. 21. 22.

Differs from *H. cinctipes* in the head, thorax, and abdomen being paler; fore wing whitish buff, the subterminal band always

entire instead of more or less interrupted; hind wing semihyaline white, the inner margin and termen tinged with yellow.

Hab. Mexico, N. Yucatan, Temase (*Gaumer*), 1 ♂; Guatemala, Las Mercedes (*Champion*), 1 ♂; Costa Rica, Candelaria Mts. (*Underwood*), 3 ♀, San José; Colombia, Popayan, type † in Coll. Rothschild. *Exp.* 50–64 millim.

Subsp. 1. *pallida*, Roths. Nov. Zool. xvi. p. 285 (1909), & xvii. pl. 11. ff. 14. 15.

Hab. Mexico (*Doubleday*), 1 ♀, Guerrero, Tonalapa (*H. H. Smith*), 1 ♀, Orizaba (*Sallé*), 1 ♀, Guadalajara, Cuernavaca, type † in Coll. Rothschild: Guatemala City (*Rodriguez*), 1 ♂; Peru, Callao (*J. J. Walker*), 2 ♂, 1 ♀.

Subsp. 2. *insularis*, Roths. Nov. Zool. xvi. p. 285 (1909), & xvii. pl. 11. ff. 32. 33.

Much smaller (48 millim.); fore wing with the antemedial and subterminal bands narrow and often more or less broken up into spots.

Hab. Haiti (*Tweedie*), 1 ♂; St. Lucia (*Cowie*), 3 ♂, 3 ♀, type † in Coll. Rothschild.

Subsp. 3. *braziliensis*, Roths. Nov. Zool. xvi. p. 285 (1902), & xvii. pl. 11. f. 5.
ruscheweyhi, Dyar, Pr. U.S. Nat. Mus. xlii. p. 52 (1912).

Pale; fore wing with the bands very indistinctly defined, the costal patches faintly marked with orange.

Hab. Brazil, Castro Paraña, type † ♀ in Coll. Rothschild; Argentina, Buenos Ayres (*Schimper*), 2 ♂, 1 ♀.

1497 *c*. Halisidota davisi.

Halesidota davisii, H. Edw. Proc. Calif. Acad. v. p. 365 (1875); Roths. Nov. Zool. xvii. pl. 11. ff. 18. 27.

Distinct from *H. cinctipes*, from which it differs in the great reduction of the bands of fore wing, the medial band reduced to spots and bars, or entirely absent, the postmedial band interrupted between veins 4 and 2, reduced to spots or to slight spots on costa and inner margin, the terminal band narrow.

Hab. U.S.A., Arizona, Nogales (*Oslar*), 2 ♂, 2 ♀; Bahamas, Nassau (*Sir G. Carter*), 1 ♂. *Exp.* 52–60 millim.

1498. Halisidota tessellaris, insert :—

Subsp. *meridionalis*, Roths. Nov. Zool. xvi. p. 286 (1909), & xvii. pl. 11. 35.

Larger; thorax without the green edges to the patagia; fore wing with the bands wider, the antemedial band narrowing almost to a point at inner margin.

Hab. Mexico, Orizaba, type † in Coll. Rothschild.

*1498 *a*. Halisidota oslari.

Halisidota oslari, Roths. Nov. Zool. xvi. p. 283 (1909), & xvii. pl. 11. ff. 36. 37.

Differs from *H. tessellaris* in the fore wing having the apex

more rounded, the costa towards apex and termen with a slight fuscous tinge, the markings very faintly defined by fine hair-lines.

Hab. U.S.A., Colorado, Denver (*Oslar*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 46, ♀ 54 millim.

*1500 *a*. Halisidota striata. (Plate LIV. fig. 11.)

Halisidota striata. D. Jones, Trans. Ent. Soc. 1908, p. 147.

♀. Head and thorax ochreous; palpi with the 2nd joint black above, the 3rd joint black at tip; frons blue-black with medial pale streak; vertex of head with blue-black patch; tegulæ and patagia blue-black, the former with round ochreous patches and medial stripe, the latter with ochreous spot near base, curved medial mark, oblique terminal streak and streak on outer edge; thorax with medial blue-black streak; fore femora and tibiæ streaked with black, mid tibiæ with spot at extremity, hind tibiæ with annulus at middle and spot at extremity; abdomen deep orange with series of small triangular dorsal black spots with orange points on them and small lateral spots, the ventral surface ochreous with series of sublateral and ventral blackish annuli. Fore wing pale ochreous, the veins black slightly defined by deep ochreous; a blue-black mark at base of costa and subbasal striga from costa; the medial area with seven interrupted black lines defined by ochreous yellow, the 1st irregularly sinuous, excurved in cell and bent inwards to inner margin, the last oblique from below costa to lower angle of cell, then incurved; a discoidal lunule defined by blue-black and with black striga above it from costa; a black streak in discal fold from the outer line to an ochreous subterminal spot defined by black, with a similar spot above it with wedge-shaped blue-black mark before it, a small triangular subapical spot, point below vein 5, two small dark spots below veins 4 and 2 and an oblique spot defined by blackish from vein 2 to termen above tornus; a black terminal line; cilia ochreous white, black at tips towards apex and with black point below vein 5. Hind wing semihyaline ochreous white, the veins brownish; a brown discoidal point; a slight brown postmedial line angled outwards in discal fold and emitting a streak forking towards termen, a brown terminal line except at the forked streak; the underside with two slight medial brown lines from costa to median nervure angled outwards below costa.

Hab. Brazil, Castro Paraña, type † ♀ in Coll. D. Jones. *Exp.* 50 millim.

1500 *b*. Halisidota sannionis. (Plate LIV. fig. 12.)

Baritius sannionis, Roths. A. M. N. H. (8) iv. p. 209 (1909).

♂. Head yellow tinged with crimson and mixed with red-brown; palpi crimson, brown in front; antennæ brown, the basal joint yellow; tegulæ yellow with black spots; thorax red-brown with some crimson and yellow at tips of patagia and on prothorax; pectus and legs yellow tinged with crimson, the tibiæ and tarsi banded

with black: abdomen crimson, the anal tuft and ventral surface yellow. Fore wing yellow thickly mottled and striated with red-brown and with crimson markings defined by white; an irregular patch at base and fascia on base of inner margin; an antemedial band formed of confluent spots; minute medial spots below costa and subcostal nervure, followed by four spots between costa and median nervure; the discocellulars black-brown; three spots between lower angle of cell and inner margin, the spot in submedian interspace angled inwards in submedian fold; a postmedial series of nine spots, the spots below veins 3 and 2 larger and the latter lunulate: a subterminal series of six spots between costa and vein 3, the spots below veins 7 and 4 nearer termen; a terminal series of six minute crimson spots defined by blackish from apex to vein 2. Hind wing pale yellow tinged with crimson; the underside yellow.

Hab. Brazil. Up. Amazons, Fonte Boa; Peru, R. Inambari, La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild. Huayabamba, 1 ♂. *Exp.* 30 millim.

This may be an aberration of *H. cyclozonata*, Hmpsn.

1500 *c*. Halisidota grandis. (Plate LIV. fig. 13.)

Baritius sannionis, grandis, Roths. Nov. Zool. xvi. p. 275 (1909).

♂. Head and thorax yellow tinged with crimson and mixed with red-brown, the tegulæ pale yellow with black spots, the dorsum of thorax with slight brown streak; palpi crimson, brown in front; pectus and legs yellow suffused with crimson, the tibiæ and tarsi banded with blackish; abdomen crimson, the extremity and ventral surface yellow. Fore wing yellow striated with red-brown and with white markings defined by brown and with crimson centres; a patch at base and fascia on base of inner margin; an antemedial maculate band; a spot below middle of costa and lunulate mark in cell, followed by another spot below costa and irregular spot in end of cell; some black-brown on discocellulars and three spots between lower angle of cell and inner margin, the spot in submedian interspace angled inwards in submedian fold; a postmedial series of seven spots, without a spot below vein 4 and with the spot in submedian interspace bifid; a subterminal series of six spots between costa and vein 3, the spots below veins 6 and 4 further from termen; a terminal series of seven small crimson spots defined by dark brown between apex and vein 2. Hind wing pale yellow tinged with crimson and with a fine crimson terminal line; the underside yellow.

Hab. Costa Rica, Tuis; W. Colombia, 1 ♂; Ecuador, Quevedo; Peru, R. Inambari, La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 36 millim.

This may be an aberration of *H. cyclozonata*, Hmpsn.

*1500 *d*. Halisidota aurata. (Plate LIV. fig. 14.)

Halisidota aurata. D. Jones, Trans. Ent. Soc. 1908, p. 148.

♀. Head and thorax orange-yellow shading to white on metathorax, the prothorax with fine brown dorsal streak; pectus and legs white, the fore coxæ and femora orange in front; abdomen orange-yellow, white at base and on ventral surface. Fore wing orange-yellow; some white at base of inner margin; a deep orange point at base of cell and rather broad fuscous fascia along median nervure and beyond the cell, ending in a point before termen below vein 6; cilia white. Hind wing pure white; the underside with the costa tinged with yellow.

Hab. Brazil, Castro Paraña, type † ♀ in Coll. D. Jones. *Exp.* 42 millim.

*1503 *a*. Halisidota similis.

Halisidota similis, Roths. A. M. N. H. (8) iv. p. 219 (1909); id. Nov. Zool. xvii. pl. 12. f. 37.

Head, thorax, and abdomen pale yellow, the vertex of head, tegulæ, and outer edge of patagia with slight red-brown streaks; palpi red-brown behind; frons with brown bar; branches of antennæ tinged with brown; fore femora tinged with orange on inner side, the tibiæ and tarsi brownish. Fore wing pale yellow sparsely irrorated with rufous; a red-brown streak along median nervure to lower angle of cell, and thence oblique and rather diffused to apex; traces of a double waved antemedial line, oblique to vein 1; small dark spots at angles of cell with a slight streak beyond the lower spot; traces of a postmedial series of lunules defined by red-brown, oblique below vein 4; a subterminal series of slight dentate dark marks. Hind wing yellowish white.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild, Corcovado; Peru, Potaro. *Exp.*, ♂ 40, ♀ 46 millim.

1503 *b*. Halisidota oruboides.

Halisidota oruboides, Roths. A. M. N. H. (8) iv. p. 219 (1909); id. Nov. Zool. xvii. pl. 12. f. 36.
Halisidota pterostomoides. Roths. Nov. Zool. xvi. p. 289 (1909).

♂. Head and thorax pale yellow, the vertex of head, tegulæ, patagia, and dorsum of thorax with red-brown streaks; palpi and antennæ red-brown; fore legs red-brown on inner side; abdomen orange-yellow, the anal tuft and ventral surface pale yellow. Fore wing citron-yellow irrorated with rufous; a diffused rufous streak along median nervure met at lower angle of cell by an oblique streak from termen below apex; an indistinct dentate rufous antemedial line with elliptical rufous-defined spots beyond it in and below cell and above vein 1; an indistinct dentate rufous-defined spot in end of cell with small rufous lunule on discocellulars and some rufous on costa at middle and above end of cell; a postmedial series of rufous-defined lunules from below costa, bent outwards below vein 5, then very oblique; a subterminal series of rather

more dentate lunules interrupted between veins 6, 5, and a fine waved line just before termen. Hind wing yellowish white.

♀. Fore wing somewhat paler with the markings less distinct.

Hab. S.E. Peru. Carabaya, S. Domingo (*Ockenden*), type † ♂ and type † ♀ *pterostenoides* in Coll. Rothschild. Tinguri, Potaro. La Oroya, R. Huancamayo. Oconeque (*Ockenden*), 1 ♂. *Exp.* 42 millim.

*1503 *c.* Halisidota bipartita. (Plate LIV. fig. 15.)

Halisidota bipartita. Dogn. Hét. Nouv. Am. Sud. vi. p. 6 (1912).

♂. Head, thorax, and abdomen ochreous tinged with brown; antennæ, palpi, and tarsi brown. Fore wing ochreous white irrorated with brown; a very indistinct double lunulate antemedial line; a rather irregular black-brown fascia from apex to inner margin near base, broken up into spots towards apex; a very indistinct double lunulate medial line with patch of black scales below costa, oblique below the cell; a very indistinct double lunulate postmedial line with patch of black scales below the cell, excurved to vein 4, then oblique; a subterminal series of small black-brown spots from the fascia to below vein 2; some blackish striæ on termen. Hind wing ochreous white; small brown subterminal spots at discal fold and vein 3 and a larger spot below vein 2; two brown striæ before termen towards apex followed by three somewhat ocellate marks to below vein 3; the underside with brown discoidal bar.

Hab. Colombia, Monte Tolima (*Fassl*), type † ♂ in Coll. Dognin. *Exp.* 44 millim.

*1503 *d.* Halisidota nubilosa.

Halisidota nubilosa. Roths. A. M. N. H. (8) iv. p. 222 (1909); id. Nov. Zool. xvii. pl. 13. f. 28.

♂. Head and thorax yellow, the patagia whitish towards tips; palpi and frons red-brown; antennæ with the branches brown; vertex of head and dorsum of thorax with brown streak, the tegulæ with small brown spots; fore legs in front and the tarsi brown; abdomen orange, the ventral surface pale yellow. Fore wing pale yellow irrorated and in parts suffused with red-brown; an oblique dark red-brown streak from termen just below apex to lower angle of cell and along median nervure to near base; the costa with small subbasal and antemedial blackish spots and five spots on postmedial area; three blackish points below costa on antemedial area; traces of an antemedial line excurved below costa and in cell; a curved yellowish medial band from costa to median nervure; a lunulate spot beyond the cell with its upper extremity much produced; an oblique series of lunulate spots from costa towards apex to submedian fold at middle; a subterminal series of lunulate spots from vein 5 to inner margin; a crenulate line just before termen; a series of brown spots on the cilia. Hind wing very pale yellow with two obscure brown annulate marks.

Hab. Peru. Carabaya, S. Domingo (*Ockenden*), type † ♂ in Coll. Rothschild. Oconeque, La Oroya. *Exp.* 56 millim.

*1504 *a*. **Halisidota hadenoides.** (Plate LIV. fig. 16.)

Halisidota hadenoides, Roths. Nov. Zool. xvi. p. 289 (1909).

♀. Head and thorax ochreous strongly suffused with red-brown; tegulæ and patagia with slight blackish points; tarsi banded with fuscous; abdomen fuscous brown, the ventral surface pale greyish brown, the anal tuft whitish. Fore wing greyish ochreous suffused with brown and irrorated with blackish; traces of a double subbasal line with black points on it in and below the cell; traces of a double minutely waved excurved antemedial line with black points on the lines from costa to median nervure; a black spot at lower angle of cell; traces of an oblique postmedial series of dentate marks defined by blackish and of a similar subterminal series with slight black marks on their outer side; a slight minutely dentate line just before termen; traces of an oblique streak from apex to discal fold in which there is a black point. Hind wing ochreous suffused with red-brown; the underside pale greyish brown, some brown irroration and slight marks at middle of costa and in upper part of cell and on apical area.

Hab. Brazil, Amazons, Iquitos (*Maxwell-Stuart*), type † ♀ in Coll. Rothschild, Codajas, Fonte Boa, R. Madeira, Alliança. *Exp.* 62 millim.

1504 *b*. **Halisidota fuscosa.** (Plate LIV. fig. 17.)

Halisidota fuscosa, D. Jones, Trans. Ent. Soc. 1908, p. 149.

♂. Head and thorax pale reddish brown; palpi yellowish white, the 2nd joint above and 3rd joint fuscous; patagia with fuscous points near base; pectus and legs ochreous white, the fore tibiæ and the tarsi streaked with fuscous; abdomen fuscous brown, the ventral surface ochreous white slightly tinged with brown except at middle. Fore wing pale red-brown with faint diffused darker shades in parts and irrorated with a few black scales; a black point at lower angle of cell and some black scales in discal fold beyond the cell; a postmedial series of faint brown dentate marks angled outwards at vein 5, then oblique, and with a series of reddish ochreous dentate marks beyond them with points of black scales on their outer edge; a series of minute dark points just before termen defined on outer side by faint ochreous lunules concave towards base; cilia whitish with some black scales at apex. Hind wing fuscous brown: the costa narrowly ochreous expanding into a patch in upper extremity of cell: the underside with rather broad ochreous fascia on costal area to near apex irrorated with some brown scales, a patch of brown scales in middle of cell and dark discoidal lunule.

Hab. Brazil, R. Grande do Sul, 1 ♂, Castro Paraña, type † ♂ in Coll. D. Jones. *Exp.* 44 millim.

1505. **Halisidota cedon,** insert (syn.):—

Halisidota venezuelensis, Roths. Nov. Zool. xvi. p. 286 (1909).

Venezuela, Palma Sol, type † ♂ in Coll. Rothschild.

1505 *a*. Halisidota stipulata. (Plate LIV. fig. 18.)

Halisidota stipulata, Roths. Nov. Zool. xvi. p. 288 (1909).

♂. Head and thorax ochreous yellow suffused with red-brown; palpi black behind; frons with black bar above; vertex of head, tegulæ, patagia, and dorsum of thorax with black streaks; tarsi black at extremities; abdomen pale yellow dorsally suffused with fuscous and with lateral series of black striæ. Fore wing yellow suffused with rufous, the veins streaked with rufous; the costa slightly irrorated with blackish on terminal half; a subbasal black point below costa; an indistinct dentate brown antemedial line with black point on it below costa; a postmedial series of dentate spots defined by red-brown and with slight black spots on their outer side, oblique below vein 4; a similar series of subterminal spots and a dentate brown line just before termen; traces of an oblique brown streak from apex to discal fold with a short black streak on it above vein 5; a series of black points at base of cilia. Hind wing yellow suffused with reddish brown except on costal area, two diffused brown subapical marks; the cilia with black points from apex to vein 3; the underside pale ochreous yellow, the costa slightly irrorated with brown, two fuscous subapical marks and a subterminal mark in discal fold.

♀. Head, thorax, and fore wing rather paler.

Hab. Br. Guiana; Peru, Huanuco Cushi, 1 ♂, Pozuzo, R. Inambari, La Oroya (*Ockenden*), type † ♂, ♀ in Coll. Rothschild, Carabaya, Tinguri, S. Domingo, Marcapata, Caradoc; Bolivia, Chulumani. *Exp.*, ♂ 46, ♀ 50 millim.

*1505 *b*. Halisidota aurantiaca.

Halisidota aurantiaca, Roths. Nov. Zool. xvi. p. 287 (1909), & xviii. pl. 4. f. 38.

♂. Head and thorax yellow tinged with rufous; palpi yellow, fuscous behind; frons with pair of fuscous points; vertex of head, tegulæ, and patagia with slight fuscous streaks; pectus and legs pale yellow, the fore and mid tarsi tinged with fuscous towards extremities; abdomen yellow, dorsally suffused with brown towards base, ventrally pale yellow. Fore wing yellow suffused and striated with rufous; a series of dark points below costa; traces of a double sinuous rufous antemedial line and of a double medial line arising in upper part of cell, angled outwards on median nervure, then oblique; a black point at lower angle of cell; an indistinct postmedial series of lunulate spots defined by rufous, very oblique below vein 4; a subterminal series of lunulate spots defined by rufous with dark points on their outer edge; a fine crenulate rufous line just before termen and a terminal series of black points. Hind wing orange-yellow, the terminal area below vein 3 black-brown running inwards on vein 1 to near base, some subterminal fuscous spots between it and costa; the underside pale yellow with slight brownish marks on medial part of costal area.

Hab. Venezuela, Caura R., La Vuelta; Brazil, Amazons, R. Madeira, Allianca (*Hoffmanns*), type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

*1506*a*. Halisidota stipulatoides. (Plate LIV. fig. 19.)

Halisidota stipulatoides, Roths. Nov. Zool. xvii. p. 64 (1910).

♂. Head and thorax yellow slightly mixed with red-brown; palpi yellow; frons and antennæ suffused with red-brown; pectus, legs, and abdomen yellow. Fore wing yellow irrorated with red-brown, the costal area with some black points, more prominent on antemedial area; an obscure double waved oblique antemedial red-brown line; traces of a double dentate medial line and of spots defined by red-brown in angle of cell; a black point at lower angle of cell; a postmedial series of dentate spots defined by red-brown, oblique below vein 4, the spot at discal fold elongate and extending to discocellulars; a subterminal series of lunulate spots defined by red-brown and with dark brown points on their outer edges; a fine crenulate red-brown line just before termen and terminal series of black points. Hind wing yellow with minute dark subapical point and minute subterminal streak in discal fold; the underside yellowish white.

Hab. Venezuela, Suapure, Caura, Máripa, La Vuelta; Br. Guiana, R. Demerara, Christianburg, type † ♂ in Coll. Rothschild; Surinam, Maroewyn R., Aroewarwar Creek; Brazil, Amazons, Codajas, Fonte Boa; Peru, Carabaya, La Union. *Exp.* 42 millim.

*1506*b*. Halisidota pseudomanda.

Halisidota pseudomanda, Roths. Nov. Zool. xvii. p. 65, pl. 14. f. 2 (1910).

♂. Head and thorax pale yellow, the head, tegulæ, and shoulders with some brown mixed; palpi at tips and frons brown; tarsi brown towards extremities; abdomen pale orange, the base, extremity, and ventral surface creamy white, sublateral series of black striæ. Fore wing pale yellow with pale rufous markings; a slight dentate subbasal line from costa to submedian fold, with black point beyond it below costa; a slight double dentate antemedial line; a faint waved medial line; some brown in end of cell and a dark brown spot at lower angle; an oblique brownish fascia from apex to discocellulars; indistinct postmedial and subterminal oblique series of dentate lunules. Hind wing creamy white.

Hab. Surinam; Peru, Carabaya, La Oroya, type † ♂ in Coll. Rothschild. S. Domingo, Tinguri. *Exp.* 46 millim.

*1506*c*. Halisidota nebulosa. (Plate LIV. fig. 20.)

Halisidota nebulosa, Roths. Nov. Zool. xvi. p. 288 (1909).

Head and thorax orange-yellow, the vertex of head with red-brown point, the tegulæ with red-brown annuli, the patagia with red-brown spots near base and tips; pectus yellowish white; abdomen yellowish white dorsally tinged with orange-yellow. Fore wing orange-yellow; subbasal brownish spots below costa and cell and a point in cell further from base; an obscure double waved antemedial line filled in with some red-brown and oblique below

the cell; an indistinct double maculate red-brown medial line, oblique below the cell; some red-brown suffusion at lower angle of cell with oblique shades from it to costa and inner margin, and some spots defined by red-brown beyond upper angle; a postmedial series of dentate spots defined by red-brown, oblique below vein 4; a subterminal series of dentate spots defined by red-brown and a waved line just before termen; a slight oblique red-brown shade from apex to discal fold and a series of brown spots on the cilia. Hind wing uniform yellowish white.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♂ in Coll. Rothschild, Corcovado; Ecuador, Quevedo; Peru, R. Inambari, La Oroya. *Exp.*, ♂ 42, ♀ 52 millim.

*1506 *d*. **Halisidota angulata.** (Plate LIV. fig. 21.)

Halisidota angulata, Roths. Nov. Zool. xvii. p. 65 (1910).

♂. Head and thorax yellow tinged with rufous; antennæ with the branches rufous; abdomen yellow, dorsally suffused with rufous, the ventral surface suffused with red-brown, more prominently on medial segments. Fore wing yellow tinged in parts with rufous; a series of slight dark points below costa; traces of an antemedial series of dentate spots defined by rufous; an oblique rufous shade on discocellulars met at lower angle of cell by an oblique sinuous shade from apex; a small blackish spot at lower angle of cell and oblique series of dentate spots defined by rufous from lower angle of cell to inner margin; a postmedial series of dentate spots defined by rufous, oblique below vein 4; a subterminal series of dentate spots; a fine crenulate brown line just before termen and a series of minute dark points at the extremities of the veins. Hind wing pale yellow, the inner half faintly tinged with rufous; the underside pale yellow.

♀. Much paler; fore wing very slightly tinged with rufous, the markings very indistinct; hind wing uniform yellowish white.

Hab. Peru, Carabaya, S. Domingo (*Ockenden*), type † ♂, ♀ in Coll. Rothschild, La Oroya. *Exp.*, ♂ 44, ♀ 50 millim.

*1507 *a*. **Halisidota obvia.** (Plate LV. fig. 1.)

Halisidota obvia, Dogn. Ann. Soc. Ent. Belg. liii. p. 221 (1909).

♂. Head and thorax yellow; palpi blackish above; antennæ brown; patagia with brown points near base and at middle; tibiæ and tarsi with brown points; abdomen ochreous dorsally tinged with rufous. Fore wing yellow irrorated and striated with red-brown, pairs of obliquely placed subbasal black points on costa and subcostal nervure; antemedial line rather diffused, rufous with black points on its inner edge, oblique from costa to median nervure, then inwardly oblique; an oblique rufous fascia from its angle along vein 2 to tornus, the costa beyond it with series of black points; a diffused brown discoidal mark and small black spot at lower angle of cell; postmedial line diffused, oblique, rufous with small

yellowish spots defined by brown on its outer edge below veins 5, 4, 2, and obscure lunulate spots before it; a subterminal series of ill-defined lunulate yellowish spots, angled inwards in discal fold and with obliquely placed dark marks beyond them from apex towards lower angle of cell; a terminal series of slight lunulate spots with blackish striæ beyond them on the cilia. Hind wing pale ochreous, the area below the cell suffused with brown to near inner margin, the termen suffused with brown; cilia yellowish white with some brown points, the underside creamy white with a dark striga from middle of costa and some brownish marks below apex.

Hab. Fr. Guiana, St. Laurent Maroni, type † ♂ in Coll. Dognin. *Exp.* 46 millim.

*1507 *b*. Halisidota batesi. (Plate LV. fig. 2.)

Halisidota batesi, Roths. Nov. Zool. xvi. p. 286 (1909).

♂. Head and thorax red-brown mixed with yellow, the vertex of head with slight dark streak, the tegulæ with black points, the patagia with black points near base and tips; palpi yellow, the 2nd joint black behind and with bar at middle; pectus and legs yellow, the fore and mid tibiæ with black spots, the tarsi banded with black; abdomen greyish ochreous, the base yellow followed by a patch of brown suffusion, the ventral surface pale yellow. Fore wing yellow thickly striated with red-brown; an antemedial band of red-brown striæ, broad to median nervure, then narrower and oblique; a red-brown streak along vein 2; an obscure double waved medial line, incurved below the cell; a red-brown discoidal patch; an oblique diffused red-brown postmedial band; the veins of terminal area slightly streaked with red-brown; a subterminal series of dentate yellow spots defined by red-brown, the spot in submedian interspace tridentate; a slight waved line just before termen and an oblique striga from apex to discal fold. Hind wing yellow; a diffused subterminal band of brown suffusion running inwards below vein 2 and the cell to near base; the underside pale yellow, some brown striæ on middle of costa and an oblique mark at apex.

Hab. Brazil, Amazons, Teffé (*M. de Mathan*), type † ♂ in Coll. Rothschild. *Exp.* 50 millim.

*1507 *c*. Halisidota racema. (Plate LV. fig. 3.)

Halisidota racema, Schaus, Pr. U.S. Nat. Mus. xxix. p. 223 (1905).

♂. Head and thorax pale yellow tinged with rufous especially on palpi and vertex of head; abdomen pale yellow dorsally tinged with orange. Fore wing pale yellow irrorated with rufous; the veins pale rufous; a slight obliquely curved subbasal line from costa to submedian fold; a slight antemedial line, very oblique from costa to median nervure, then inwardly oblique and somewhat sinuous and with an oblique brown shade beyond it from vein 2 to 1; an oblique

waved line from middle of costa to lower angle of cell with brown shade beyond it from subcostal nervure to vein 4; postmedial line double, lunulate, oblique from costa to vein 4, then very inwardly oblique, met at vein 4 by an oblique irregular brown fascia from apex; a double lunulate subterminal line with a brown mark on it between veins 3 and 4; a slight dentate line just before termen. Hind wing very pale yellow with a slight brown tinge on terminal area at apex and near vein 2.

Hab. Fr. Guiana, St. Jean Maroni, type † ♂ in Coll. U.S. Nat. Mus. *Exp.* 48 millim.

1507 *d.* Halisidota setosa.

Halisidota setosa, Roths. A. M. N. H. (8) iv. p. 218 (1909); id. Nov. Zool. xvii. pl. 12. f. 35.

Head and thorax ochreous yellow tinged with brown, the metathorax with blackish spot; palpi brown above; tarsi banded with brown; abdomen ochreous yellow dorsally suffused with red-brown. Fore wing ochreous yellow irrorated with brown; the basal area with two blackish points below costa and two below the cell; double antemedial blackish points on and below costa and an oblique brown line from cell to inner margin; the cell suffused with brown on medial area; a blackish spot on middle of costa, two discoidal spots and traces of a sinuous line from cell to inner margin; two postmedial blackish points on costa with a diffused brown band from them to vein 3, then a faint incurved line to inner margin; a very indistinct subterminal series of conjoined lunulate spots; three obliquely placed blackish points from termen below apex to vein 5, a series of slight annulate brown spots just before termen and a series of minute blackish points on the cilia. Hind wing ochreous yellow with a slight brown discoidal lunule, subterminal spot below vein 2, short streak in extremity of discal fold and small spot on termen just below apex.

Hab. Peru, Carabaya, La Union (*Ockenden*), type † ♂ in Coll. Rothschild, La Oroya, Tinguri, Chaquimayo (*Watkins*), 5 ♂, Yahuarmayo, 1 ♂, 1 ♀. *Exp.* 32 millim.

*1507 *e.* Halisidota vangetta. (Plate LV. fig. 4.)

Halesidota vangetta, Dyar, Pr. U.S. Nat. Mus. xxxviii. p. 235 (1910).

♂. Head and thorax ochreous tinged with brown, the patagia paler towards tips and with two black spots; abdomen ochreous, dorsally suffused with brown. Fore wing ochreous thickly irrorated with brown, the base and the triangularly shaped inner medial area less strongly irrorated, the dentate, antemedial, medial, and postmedial lines hardly traceable except for a pale dentate mark beyond the cell placed on an oblique dark shade from apex to lower angle of cell; the subterminal series of pale marks defined on outer side

by fuscous rather more distinct and with a pale dentate mark on the oblique shade. Hind wing ochreous, the inner area suffused with brown; a dark discoidal spot and two marks on termen towards apex.

Hab. Mexico, Misantla (*Müller*). *Exp.* 48 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

1507 *f*. Halisidota apicepunctata. (Plate LV. fig. 5.)

Halisidota apicepunctata, Schaus, Pr. U.S. Nat. Mus. xxix. p. 224 (1905).

♂. Head and thorax ochreous white, the latter with some ochreous on dorsum; palpi blackish at sides; patagia with small blackish spots; fore legs in front and extremity of tarsi brownish; abdomen pale ochreous yellow slightly tinged with brown on dorsum towards extremity. Fore wing yellowish white, the lunulate lines almost obsolete and reduced to brown irroration with more distinct striæ on costal area and an oblique antemedial striga above inner margin; a small brown ocellus at lower angle of cell; three small obliquely placed black spots between apex and vein 5. Hind wing yellowish white, the inner area rather yellower; a diffused subterminal brownish band from vein 3 to tornus towards which it narrows; some slight dark points on termen.

Hab. Peru, Carabaya, 1 ♂, Oconeque (*Ockenden*), 2 ♂, Aguakani (*Ockenden*), 2 ♂. *Exp.* 42 millim.

1507 *g*. Halisidota nimbiscripta. (Plate LV. fig. 6.)

Halisidota nimbiscripta, Dyar, Pr. U.S. Nat. Mus. xlii. p. 51 (1912).
Halisidota pseudofalacra, Roths. Nov. Zool. xxiv. p. 482 (1917).

♀. Head, thorax, and abdomen creamy white tinged with ochreous. Fore wing very pale creamy yellow slightly irrorated with pale fuscous; traces of a dark antemedial line, sinuous to submedian fold, then inwardly oblique; a small blackish spot at lower angle of cell; traces of two dentate dark postmedial lines oblique below vein 4 and of two dentate subterminal lines; a series of slight dark striæ before termen. Hind wing creamy white.

Hab. Mexico, Guerrero, Igula, 1 ♀; Nicaragua, San Ramon (*Palmer*), type † ♀ *pseudofalacra* in Coll. Rothschild. *Exp.* 40 millim.

*1508 *a*. Halisidota flavorufa.

Halisidota flavorufa, Roths. Nov. Zool. xvii. p. 66, pl. 13. f. 31 (1910).

♂. Head and thorax very pale yellow, the head and front of thorax with some red-brown mixed, the back of head and dorsum of thorax with slight brown streaks; palpi behind and antennæ red-brown; fore tibiæ and tarsi brown on inner side; abdomen pale yellow, the ventral surface creamy white. Fore wing very pale

yellow irrorated with red-brown: traces of an antemedial line formed of red-brown scales, and of a similar oblique medial band from cell to inner margin; a brown spot on upper discocellular and a large spot at lower angle of cell with four whitish points on it; traces of oblique postmedial and subterminal lunulate bands, the former with diffused brown spot at discal fold. Hind wing creamy white.

Hab. Br. Guiana, Potaro, type † ♂ in Coll. Rothschild; Ecuador, Carondelet. *Exp.* 46 millim.

*1508 *b*. Halisidota mandus.

Phegoptera mandus, Herr.-Schäff. Aussereur. Schmett. f. 286 (1855).

♂. Head and thorax pale yellow mixed with some rufous; a faint rufous patch between antennæ, the tegulæ and base of patagia with paired rufous streaks; abdomen pale yellow, the ventral surface white. Fore wing pale yellow with numerous small pale rufous spots; a brown point at lower angle of cell; a faint irregular very pale brown fascia in submedian fold from near base to the faint very pale brown irregular postmedial band which is excurved below costa, then oblique, met at discal fold by an irregular oblique fascia from apex and terminating at submedian fold. Hind wing semihyaline yellowish white.

Hab. Brazil, Castro Paraña, in Coll. D. Jones. *Exp.* 48 millim.

*1515 *a*. Halisidota ronda. (Plate LV. fig. 7.)

Halisidota ronda, D. Jones, Trans. Ent. Soc. 1908, p. 148.

♂. Head and thorax white mixed with dark brown and tinged with yellowish; palpi orange with black-brown spots on 1st and 2nd joints; antennæ with the basal joint orange; tegulæ with black-brown fasciæ at middle and streaks on outer edge; patagia white edged with black, with black-brown spot at middle and point near upper edge towards tip; thorax with dorsal brown streak; pectus pale yellowish with patches of brown; legs white with some black-brown markings; abdomen orange with dorsal series of black spots and lateral series of black annuli, the ventral surface white irrorated with brown and with sublateral series of brown patches. Fore wing very pale yellow thickly irrorated with brown; two blackish points at base; an antemedial series of brown-edged white spots, angled outwards in cell, then oblique and with another similar series of spots beyond it; an oblique medial series of spots, the two spots in cell slightly displaced inwards; some minute spots on discocellulars and beyond upper angle of cell and a spot beyond the cell; an oblique postmedial series of spots bent outwards to inner margin; a subterminal series of spots, the spots below costa and above vein 5 slightly displaced inwards; a crenulate brown line on termen and cilia defining white spots on the cilia. Hind wing semihyaline white, the veins faintly tinged with brown; a slight very faint brown postmedial line, excurved beyond

the cell; the underside with brown-edged medial band from costa to median nervure, incurved in cell, a slight discoidal lunule, the postmedial line minutely waved, a faint waved line just before termen, incurved below vein 1.

Hab. Brazil, Castro Paraña, type † ♂ in Coll. D. Jones. *Exp.* 50 millim.

*1515 *b*. **Halisidota dallipa.** (Plate LV. fig. 8.)

Halisidota dallipa, D. Jones, Trans. Ent. Soc. 1908, p. 149.

♂. Head and thorax ochreous white, the head and front of thorax tinged with red-brown; abdomen white dorsally suffused with pale brown except at base. Fore wing very pale ochreous irrorated with fuscous brown: a black point at lower angle of cell; traces of a dentate postmedial line, oblique below vein 1; a subterminal series of minute dentate dark spots. Hind wing semihyaline yellowish white; the underside with some brown scales on costal area towards apex and two brownish spots on termen below apex.

Hab. Brazil, Castro Paraña, type † ♂ in Coll. D. Jones. *Exp.* 42 millim.

*1515 *c*. **Halisidota longipennis.** (Plate LV. fig. 9.)

Halisidota longipennis, Dogn. Ann. Soc. Ent. Belg. lii. p. 155 (1908).

♂. Head and thorax orange slightly tinged with brown; palpi with black streak on 1st and 2nd joints at sides; frons with lateral black bars above; tegulæ with black points; patagia with black points near base, followed by slight streaks; tibiæ and tarsi banded with black; abdomen orange, the hair at base and ventral surface pale yellow. Fore wing long and narrow; pale yellow, the costa and inner margin more orange; a black point on costa near base, a subbasal spot in cell followed by points on costa and above vein 1; two antemedial series of fuscous annulate spots; a medial series of indistinct annulate spots, angled inwards in cell and submedial fold; black points at angles of cell; an oblique postmedial series of indistinct lunulate spots, incurved below vein 3; a subterminal series of lunulate spots, angled inwards in discal fold where there is a fuscous mark on its outer edge; a minutely dentate terminal line formed by a series of minute W-marks. Hind wing very pale yellow, semihyaline.

Hab. Bolivia, Yungas la Paz, type † ♂ in Coll. Dognin. *Exp.* 40 millim.

*1515 *d*. **Halisidota malodonta.** (Plate LV. fig. 10.)

Halesidota malodonta, Dyar, Insec. Inscit. Menstr. ii. p. 161 (1914).

♂. Head and thorax ochreous tinged with rufous; antennæ with the branches brown; pectus and legs ochreous white, the fore

femora orange above; abdomen fulvous yellow, the base, extremity, and ventral surface ochreous white. Fore wing ochreous irrorated with brown except on basal and terminal areas, the veins with fine brown streaks; some brown suffusion above terminal half of median nervure and beyond lower angle of cell; an oblique postmedial series of bidentate lunules defined by brown, the lunule in discal fold extending almost to the discocellulars; a subterminal series of elongate bidentate marks defined by brown with elongate spots defined by brown beyond them before termen. Hind wing white; the underside with the costal area tinged with ochreous.

Hab. Peru, Huadquina, type † ♂ in U.S. Nat. Mus. *Exp.* 44 millim.

1516. **Halisidota annulosa**, insert (syn.):—

Halisidota nimbifacta, Dyar, Pr. U.S. Nat. Mus. xlii. p. 51 (1912).

Mexico.

*1516 *a*. **Halisidota pseudomaculata**. (Plate LV. fig. 11.)

Halisidota pseudomaculata, Roths. Nov. Zool. xvii. p. 57 (1910).

♀. Head and thorax bright yellow mixed with some rufous; fore tibiæ and tarsi brown, the latter ringed with yellowish; abdomen yellowish white. Fore wing bright yellow with double rufous lines filled in with rufous irroration and with waved edges forming bands; an oblique subbasal band from costa to vein 1; an antemedial band, excurved in cell and conjoined in parts to a medial band and with a dark streak at inner margin; a band from costa to lower angle of cell with a yellow discoidal lunule on it, then a narrow oblique band from lower angle of cell to inner margin where it joins the medial band; an oblique postmedial band slightly angled inwards at discal and submedian folds; a minutely dentate red-brown subterminal line with black spot on it at discal fold; a crenulate red-brown line just before termen, angled outwards to termen at the veins. Hind wing semihyaline yellowish white.

Hab. Brazil, Rio Province, type † ♀ in Coll. Rothschild. *Exp.* 48 millim.

*1516 *b*. **Halisidota major**.

Halisidota walkeri, major, Roths. Nov. Zool. xvii. p. 67, pl. 13. ff. 17, 32 (1910).

♂. Head, thorax, and abdomen orange-yellow; antennæ with the branches brownish; vertex of head with slight brown streak; tegulæ with brown points; patagia with oblique brown streaks at base. Fore wing orange-yellow, the veins slightly streaked with red-brown, the medial part of inner margin with dark brown streak; a slight oblique brown subbasal line from costa to submedian fold; an oblique antemedial brown band from costa to median nervure,

then an incurved double line slightly angled inwards at submedian fold; an indistinct double irregularly waved medial line; a narrow oblique dark brown band from costa above end of cell to inner margin with a small obscure bilobed discoidal mark on it; postmedial line double, minutely waved, excurved from below costa to angle of cell then confluent with the outer edge of the oblique band; the postmedial area with double irregularly waved oblique line; a subterminal line formed of small spots defined by red-brown, rather triangular towards costa, then rounded and excurved below vein 4 and with dark point on its inner edge at discal fold, connected with a series of small triangular brown spots on termen and cilia. Hind wing semihyaline yellowish white.

Hab. Costa Rica, Tuis; Trinidad; Colombia, Canauche; Venezuela, Valencia; Surinam, Maroewyn Valley, type † ♂ in Coll. Rothschild; Brazil, Up. Amazons, Fonte Boa, Codajas; Ecuador, Pambilan, S. Javier, Salidero; Peru, Chanchamayo, Rio Dagua. *Exp.* 36 millim.

1516 *e*. Halisidota texta.

Charidea texta, Herr.-Schäff. Aussereur. Schmett. f. 281 (1855); Kirby, Cat. Lep. Het. p. 208.
Halisidota thyophora, Schaus, J. N.Y. Ent. Soc. iv. p. 140 (1896).
Halisidota tucumana, Roths. Nov. Zool. xvi. p. 280 (1909).
Halisidota distincta, pallida, Roths. Nov. Zool. xvii. p. 58 (1910).

♂. Head, thorax, and abdomen pale yellow; antennæ with the branches reddish brown; vertex of head with slight brown streak; tegulæ with brown points; patagia with oblique brown streaks at base. Fore wing pale yellow; a double curved irregularly waved subbasal brown line from costa to submedian fold; a brown antemedial band from costa to median nervure and a double maculate line from cell to inner margin; an indistinct oblique double maculate medial line; a double discoidal bar and slight double line from lower angle of cell to inner margin, with traces of a brown-irrorated band beyond it from costa to inner margin; postmedial area with oblique double waved line; a subterminal double maculate line with dark point on its inner edge at discal fold, and connected with a terminal series of brown points. Hind wing semihyaline yellowish white.

♀. Somewhat paler and with the fore wing rather broader.

Hab. Mexico, 1 ♀; Brazil, Espiritu Santo, 1 ♀, Castro Paraña (*D. Jones*), 1 ♂, 1 ♀; type † ♂ *pallida* in Coll. Rothschild; Peru, Callao (*J. J. Walker*), 2 ♂, 4 ♀; Argentina (*Leech*), 1 ♂, 1 ♀, Tucuman (*Monetti*), type † ♂ *tucumana* in Coll. Rothschild, Buenos Ayres (*Wilkinson*). 1 ♀. *Exp.* 36–46 millim.

Larva. Pale yellow with brushes of long yellow hair.

Cocoon. Pale yellow with long pointed tuft of yellow hair on dorsum, brownish at tip.

1517. **Halisidota catenulata**, insert :—

Halisidota walkeri, Roths. Nov. Zool. xvii. p. 67, pl. 13. ff. 18, 30 (1910).

Venezuela. Caura. La Union, type † ♂. ♀ in Coll. Rothschild., and delete *Charidea texta* and *Halisidota thyophora*.

*1517 *a*. **Halisidota subfasciata.**

Halisidota subfasciata, Roths. Nov. Zool. xvii. p. 66, pl. 14. f 1. (1910).

♂. Head, thorax, and abdomen very pale yellow; palpi with brown streak at sides; brownish bars on frons and between antennæ and a slight streak at back of head; tegulæ with brown points, the patagia with slight brown marks at base; fore and mid tibiæ and tarsi brownish in front. Fore wing pale semihyaline ochreous yellow; the subbasal area with some brown suffusion from costa to submedian fold; a brownish antemedial band, excurved to median nervure, then narrow and incurved; a narrow medial band defined by waved brown lines, oblique below the cell, followed by another oblique brownish band with waved edges, rather broad to lower angle of cell and with black discoidal point on it, then very narrow; an oblique lunulate brownish postmedial band, angled inwards at discal fold; a subterminal band formed of dentate spots defined by brown, the spot in discal fold with a black point on its inner edge. Hind wing semihyaline creamy white.

Hab. Paraguay. Sapucay, type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

1517 *b*. **Halisidota subannula.** (Plate LV. fig. 12.)

Halisidota subannula, Schaus, A. M. N. H. (8) vii. p. 185 (1911).

Head and thorax ochreous slightly tinged with red-brown; tegulæ with brown points; tibiæ and tarsi slightly ringed with brown; abdomen orange-yellow, the ventral surface ochreous. Fore wing ochreous; subbasal line double, red-brown, slightly sinuous, from costa to vein 1; antemedial line double, slightly waved, oblique below the cell, a double waved line just beyond it; a double waved medial line from costa to vein 2; a double line at end of cell with a black point at middle, and an oblique brown line from costa to inner margin, interrupted at lower angle of cell and with a dentate red-brown line just beyond it; postmedial line double, oblique, the inner line slightly sinuous, the outer line dentate; a waved subterminal line with small black spot at discal fold; a fine waved terminal line, dentate on the cilia; the inner margin with a red-brown fascia except at base. Hind wing pale semihyaline ochreous; the underside with small brown annulus below middle of costa.

Hab. Costa Rica, Zent Distr. (*Schaus*), 1 ♂; Peru, Chanchamayo, 1 ♀. *Exp.*, ♂ 36, ♀ 40 millim.

1517 *c*. **Halisidota albipennis.** (Plate LV. fig. 13.)

Halisidota albipennis, Hmpsn. A. M. N. H. (7) xiv. p. 166 (1904).

♀. Head and thorax white; tegulæ and patagia with indistinct fuscous annuli; palpi with fuscous marks at sides; legs with slight fuscous bands, the fore femora yellow above; abdomen white, dorsally yellow except at extremity. Fore wing white with numerous waved interrupted fuscous lines forming obscure annuli; an antemedial semicircular mark on costa; a discoidal lunule with ill-defined oblique band formed by the waved lines from it to inner margin. Hind wing pure white.

Hab. Bahamas, Nassau (*Sir G. Carter*), 2 ♀ type. *Exp.* 50–54 millim.

1523 *a*. **Halisidota conspicua**, trans. from *Amastus* no. 1167.

*1523 *b*. **Halisidota tolimensis.** (Plate LXVI. fig. 14.)

Halisidota tolimensis, Roths. Nov. Zool. xxiii. p. 270 (1916).

♂. Head white; antennæ rufous with some white above towards base; palpi dark brown; abdomen whitish tinged with brown, some rufous hair at base and the anal tuft rufous; pectus and legs rufous; ventral surface of abdomen whitish tinged with rufous. Fore wing ochreous tinged with rufous and irrorated with dark brown, semihyaline except the marginal areas; the discocellulars blackish; a waved whitish subterminal line. Hind wing semihyaline white; the underside with the costal area tinged with rufous.

Hab. Colombia, Monte Tolima (*Fassl*), type † ♂ in Coll. Rothschild. *Exp.* 68 millim.

1523 *c*. **Halisidota melanoproctis.** (Plate LV. fig. 14.)

Halisidota melanoproctis, Hmpsn. A. M. N. H. (8) iv. p. 359 (1909).

♀. Head white; palpi black; antennæ rufous; thorax rufous; abdomen white-scaled with rufous hair at base, the terminal segments and ventral surface black and without scales, the slight anal tuft white. Fore wing yellowish rufous, the interspaces hyaline except on terminal area which is irrorated with black; a black discoidal point; an indistinct waved yellowish subterminal line defined on inner side by slight diffused black scaling. Hind wing hyaline, the terminal area suffused with fulvous yellow; the underside with the costal area fulvous yellow.

Hab. S.E. Peru, Agualani (*Ockenden*), 2 ♀ type. *Exp.* 56 millim.

*1523 *d*. **Halisidota maasseni.**

Halisidota maasseni, Roths. Nov. Zool. xvi. p. 289 (1909). & xviii. pl. 4. f. 24.

♂. Head and thorax pale red-brown; palpi, pectus in front, and fore legs black-brown; abdomen fuscous brown, dorsally clothed

with grey hair except towards extremity, the anal tuft whitish. Fore wing hyaline irrorated with brown scales to beyond middle; a slight black discoidal lunule; a diffused brownish postmedial band with waved outer edge, the area beyond it pale ochreous brown with a faint pale waved subterminal line; a terminal series of slight black points. Hind wing semihyaline white; the underside with the costa slightly tinged with ochreous.

Hab. Peru. Carabaya, Limbani (*Ockenden*). type † ♂ in Coll. Rothschild, Agnalani. *Exp.* 34 millim.

1523*e*. Halisidota semifulva. (Plate LV. fig. 15.)

Amastus semifulvus. Druce, A. M. N. H. (7) xviii. p. 84 (1906).

♀. Head and thorax white faintly tinged with brown in parts; palpi and antennæ black-brown; pectus at sides and legs tinged with reddish brown, the latter irrorated with fuscous; abdomen black-brown with the hair on basal half of dorsum white, slight whitish segmental rings and the anal tuft white. Fore wing pale olive-yellow irrorated with brown, the interspaces hyaline except the inner margin to beyond the cell, the veins black-brown except on terminal area, the base of inner margin white; a series of minute black streaks on extremity of the veins and base of cilia. Hind wing very pale yellow, the interspaces of discal area semihyaline.

Hab. Peru. Agnalani (*Ockenden*). 2 ♀. *Exp.* 56 millim. Type † ♀ in Coll. Joicey.

*1523*f*. Halisidota picata. (Plate LV. fig. 16.)

Halisidota picata. Roths. Nov. Zool. xvii. p. 188 (1910).

♀. Head and thorax white slightly tinged with ochreous; palpi black at sides; antennæ black except basal joint; neck with black ring; patagia black at base and with black streak on upper edge; pectus brownish ochreous; legs mostly suffused with fuscous brown; abdomen grey-white, the hair on dorsum ochreous, the ventral surface brown almost bare of scales. Fore wing semihyaline white with a suffusion of brown scales in end of cell, on inner medial area, on postmedial area, and of paler brown on terminal area; a brown patch at base of cell; the discocellulars and the veins beyond the cell to the subterminal line blackish; a white spot above end of cell and bar at middle of inner margin; subterminal line white, dentate, angled inwards at discal fold. Hind wing white, almost hyaline except the marginal areas; the underside faintly tinged with brown, especially on costal area.

Hab. Peru, Cerro de Pasco, Huancabamba (*Boettger*), type † ♀ in Coll. Rothschild. *Exp.* 52 millim.

*1523 *g*. Halisidota occendeni.

Halisidota ockendeni, Roths. A. M. N. H. (8) iv. p. 216 (1909); id. Nov. Zool. xvii. pl. 13. f. 21.

♀. Head and thorax white, the patagia towards tips and metathorax tinged with brown; palpi and antennæ black; pectus and legs yellowish suffused with brown; abdomen yellowish suffused with brown, blackish towards extremity, the anal tuft white. Fore wing hyaline irrorated with large dark brown scales, the inner and terminal areas white irrorated with brown, the latter ochreous towards termen, the inner edge of the terminal area waved and angled inwards at discal fold; a small blackish discoidal spot; the postmedial area suffused with brown and with series of small blackish spots; a subterminal series of small blackish spots. Hind wing semihyaline white; the underside with the costal area tinged with ochreous brown.

Hab. Peru, Carabaya, Agualani, type † ♀ in Coll. Rothschild, Oconeque. *Exp.* 51 millim.

1523 *h*. Halisidota vitreata. (Plate LV. fig. 17.)

Halisidota vitreata, Hmpsn. A. M. N. H. (8) iv. p. 359 (1909).

♂. Head and thorax bright rufous; palpi, antennæ, and legs dark brown; abdomen pale rufous, the terminal segments blackish. Fore wing hyaline, the margins rufous. Hind wing hyaline, the inner area reddish ochreous, the cilia rufous.

♀. Fore wing with the interspaces of basal half semihyaline, the terminal half and margins rufous slightly irrorated with dark scales; hind wing pale reddish ochreous.

Hab. S.E. Peru, Agualani (*Ockenden*), 1 ♂, 1 ♀ type. *Exp.* 66 millim.

*1524 *a*. Halisidota rufocinnamomea.

Halisidota rufocinnamomea, Roths. Nov. Zool. xvi. p. 289 (1909), & xviii. pl. 4. f. 11.

♀. Head and thorax yellow suffused with rufous; palpi black, yellow in front towards tips; frons with lateral blackish marks; fore tibiæ and tarsi black on inner side, the tarsi ringed with black; abdomen ochreous, the hair on dorsum towards base pale. Fore wing pale yellow thickly irrorated with rufous; a rufous point at lower angle of cell; faint oblique pale postmedial and subterminal bands. Hind wing semihyaline creamy white; the underside with the costal area slightly tinged with rufous.

Hab. Peru, Carabaya, Agualani (*Ockenden*), type † ♀ in Coll. Rothschild, Limbani, Oconeque. *Exp.* 50 millim.

*1524 *b*. Halisidota anapheoides.

Halisidota anapheoides, Roths. A. M. N. H. (8) iv. p. 223 (1909), & xviii. pl. 3. f. 18.

♀. Head, thorax, and abdomen ochreous suffused with rufous; antennæ brown; fore femora rufous above. Fore wing ochreous

tinged and irrorated with rufous, the veins and submedian fold rufous, the termen rufous; traces of a diffused rufous subterminal line. Hind wing pale ochreous yellow, the inner area tinged with rufous; the underside with the costal area tinged with rufous.

Hab. Panama, Chiriqui (*Watson*), type † ♀ in Coll. Rothschild. *Exp.* 56 millim.

*1527*a*. Halisidota semivitrea.* (Plate LV. fig. 18.)

Halisidota semivitrea, Dogn. Ann. Soc. Ent. Belg. li. p. 228 (1907).

♂. Head white; palpi with black spot on 2nd joint at side and the 3rd joint black; frons with black point above; antennæ pale ochreous yellow except at base; thorax pale ochreous yellow; abdomen with the basal half yellowish white, the terminal half orange, the ventral surface and anal tuft ochreous white, a lateral series of small black spots. Fore wing pale ochreous yellow, the disk semihyaline. Hind wing semihyaline white faintly tinged with ochreous.

Hab. Peru, Huallaga, type † ♂ in Coll. Dognin. *Exp.* 58 millim.

*1528*a*. Halisidota agramma.* (Plate LV. fig. 19.)

Halisidota agramma, Dogn. Ann. Soc. Ent. Belg. l. p. 183 (1906).

Head and thorax red-brown; abdomen ochreous tinged with brown. Fore wing ochreous suffused with pale red-brown and thickly irrorated with fuscous; faint traces of a subterminal series of slight dark spots, excurved at middle. Hind wing yellowish white, thinly scaled; the underside with slight dark irroration, the costal area tinged with red-brown.

Hab. Colombia, San Antonio (*Palmer*). 1 ♂, 2 ♀; S.E. Peru, Carabaya, S. Domingo, type † ♂ in Coll. Dognin. *Exp.* 42 millim.

*1529*a*. Halisidota semibrunnea.* (Plate LV. fig. 20.)

Automolis semibrunnea, Druce, A. M. N. H. (7) xviii. p. 81 (1906).

♂. Head and tegulæ pale yellow mostly suffused with rufous, the latter with yellow dorsal and lateral streaks; antennæ black except at base; thorax pale yellow, the metathorax rufous, the extremity whitish with rufous lines almost forming an annulus; pectus and legs orange-red, the tibiæ and tarsi mostly blackish; abdomen blackish, orange-red at base. Fore wing pale yellow shading to rufous before the terminal area which is black-brown, the costal area black-brown from before middle; a slight discoidal brown point. Hind wing pale yellow, the terminal area suffused with black-brown, most widely at apex and tornus.

Hab. Peru, S. Domingo (*Ockenden*), type † ♂ in Coll. Joicey. *Exp.* 40 millim.

*1529 *b*. Halisidota roseofasciata. (Plate LV. fig. 21.)

Automolis roseofasciata, Druce, A. M. N. H. (7) xviii. p. 82 (1906).

♂. Head and tegulæ rufous mixed with some yellow, the latter with indistinct yellowish annulus; antennæ black except at base; thorax pale yellow with orange-red band on metathorax; pectus and legs orange-red, the tibiæ and tarsi red-brown, the latter slightly ringed with yellow; abdomen orange-red, the ventral surface red-brown. Fore wing pale yellow shading to orange-red before termen which is dark red-brown, the costal edge red-brown; a broad diffused pale crimson medial band from middle of cell to inner margin; a crimson discoidal point. Hind wing orange-yellow.

Hab. Peru, S. Domingo (*Ockenden*), type † ♂ in Coll. Joicey. *Exp.* 38 millim.

Genus **MICRODOTA**.

Type.

Microdota, Dogn. Ann. Soc. Ent. Belg. l. p. 183 (1906) ..... *lenistriata*

Proboscis rather slight; palpi extending about the length of head; antennæ of male bipectinate with rather long branches to apex; head and thorax smoothly scaled; hind tibiæ with one pair of spurs; abdomen smoothly scaled. Fore wing with vein 3 from well before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with vein 3 from before angle of cell; 5 from above angle; 6, 7 stalked; 8 from middle of cell.

In key differs from *Cyanarctia* in the hind tibiæ having the medial spurs absent.

*1531 *a*. Microdota lenistriata.

Microdota lenistriata, Dogn. Ann. Soc. Ent. Belg. l. p. 183 (1906).
Ischnocampa pellucida, Roths. Nov. Zool. xvii. p. 188, pl. 14. f. 35 (1910).

♂. Head and thorax ochreous tinged with brown; antennæ brown; abdomen ochreous. Fore wing ochreous, thinly scaled, thickly irrorated and striated with brown; the veins irrorated

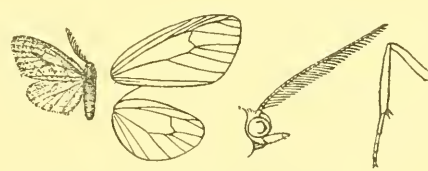

Fig. 82.—*Microdota lenistriata*, ♂. ½.

with black; a small black spot at lower angle of cell; cilia brownish. Hind wing pale ochreous yellow, thinly scaled.

Hab. Venezuela, Valencia, type † ♂ *pellucida* in Coll. Rothschild; Paraguay, type † ♂ in Coll. Dognin. *Exp.* 20 millim.

1532. **Metaxanthia vespiformis**, insert (syn.) :—

Sciopsyche auranticauda, Klages, Pr. U.S. Nat. Mus. xxix. p. 549 (1906).

♂. Pectus with lateral crimson spots on mesothorax, the 1st joint of palpi, fore and mid coxæ, and femora pale yellow.

Colombia, Muzo (*M. de Mathan*) in Coll. Rothschild.

*1532 *a*. **Metaxanthia aureiventris**. (Plate LVI. fig. 1.)

Metaxanthia aureiventris, Roths. Nov. Zool. xx. p. 591 (1913).

♀. Head and thorax black; abdomen orange, the three basal segments of dorsum and the basal ventral segment only black, the anal tuft yellow. Fore wing semihyaline sparsely clothed with fuscous scales, the veins, base, and inner margin blacker. Hind wing hyaline, the veins and termen black.

Hab. Costa Rica, Carillo (*Underwood*); Colombia, Cundinamarcha (*M. de Mathan*), type † ♀ in Coll. Rothschild. *Exp.* 32–38 millim.

*1532 *b*. **Metaxanthia atribasis**. (Plate LVI. fig. 2.)

Metaxanthia atribasis, Roths. Nov. Zool. xx. p. 591 (1913).

♀. Head and thorax black; abdomen orange, the two basal segments of dorsum and the basal ventral segment only black, the anal tuft yellow. Fore wing semihyaline sparsely clothed with fuscous scales, the veins, base, and inner margin blacker. Hind wing hyaline, the veins and termen black.

Hab. Ecuador, Paramba (*Rosenberg*), type † ♀ in Coll. Rothschild. *Exp.* 36 millim.

1532 *c*. **Metaxanthia threnodes**. (Plate LVI. fig. 3.)

Metaxanthia threnodes, Druce, A. M. N. H. (7) xv. p. 467 (1905).

♂. Head, thorax, and abdomen black with a slight bluish gloss; basal joint of palpi, coxæ, and greater part of femora pale lemon-yellow; abdomen with yellowish-white ventral patch on 1st three segments, the anal tuft pale lemon-yellow. Fore wing black, rather thinly scaled, the veins darker; the interspaces of apical area between veins 8 and 3 semihyaline. Hind wing hyaline, the veins and margins black, the costal and apical areas suffused with black.

Hab. Venezeula, Caura Valley (*Klages*), 10 ♂. *Exp.* 26–30 millim. Type † ♂ in Coll. Joicey.

*1534 *a*. **Agoræa atrivena**. (Plate LVI. fig. 4.)

Agoræa atrivena, Dogn. Hét. Nouv. Am. Sud, iii. p. 12 (1911).

♀. Head, tegulæ, and patagia orange, the vertex of thorax with blackish dorsal streak; palpi and antennæ black-brown;

pectus and legs grey suffused with brown; abdomen orange-yellow with black-brown dorsal streak except at extremity towards which it is broken up into spots, the ventral surface grey-white tinged with brown at base, lateral and sublateral black streaks. Fore wing grey-white, the costal edge towards base, veins, discal fold in cell, and submedian fold black-brown; a fine brown terminal line. Hind wing grey-white, the veins black-brown; a fine brown terminal line. Underside of fore wing and costal area of hind wing tinged with brown.

Hab. COLOMBIA (*Fassl*), type † ♀ in Coll. Dognin. *Exp.* 44 millim.

1534*b*. Agoræa phæophlebia. (Plate LVI. fig. 5.)

Agoræa phæophlebia, Hmpsn. Nov. Zool. xxiii. p. 233 (1916).

♀. Head, tegulæ, and patagia orange-yellow, the dorsum of thorax yellowish white; antennæ yellowish white, the branches blackish; fore coxæ and femora orange-yellow, the tibiæ and tarsi brownish white; pectus, mid and hind legs yellowish white; abdomen orange-yellow, the base and ventral surface yellowish white. Fore wing yellowish white, the veins, discal fold in the cell, and submedian fold finely streaked with fuscous brown. Hind wing yellowish white, the veins of terminal area slightly streaked with brownish.

Hab. VENEZUELA, Merida, 1 ♀ type. *Exp.* 36 millim.

*1534*c*. Agoræa citrinotincta.

Agoræa citrinotincta, Roths. Nov. Zool. xvi. p. 290 (1909), & xviii. pl. 4. f. 30.

Head, tegulæ, and patagia yellow; thorax pale grey-brown; palpi blackish, white in front; antennæ with the shaft white, the branches blackish; fore legs with the coxæ yellow, the femora fuscous above; abdomen yellow, the base pale grey-brown, the medial segments with slight dorsal black streak, the ventral surface whitish. Fore wing yellowish white, the veins, discal fold in cell, and submedian fold streaked with black. Hind wing semihyaline whitish.

Hab. COLOMBIA. Sta. Marta, Onaca (*Engelke*), type † ♂ in Coll. Rothschild; VENEZUELA, Merida (*Briceno*). *Exp.*, ♂ 32, ♀ 36 millim.

1535. Agoræa longicornis, insert (syn.):—

Agoræa schausi, Roths. Nov. Zool. xvi. p. 290 (1909).

MEXICO, Orizaba (*Schaus*), type † ♂ in Coll. Rothschild.

*1535*a*. Agoræa boettgeri. (Plate LVI. fig. 6.)

Agoræa boettgeri, Roths. Nov. Zool. xvi. p. 290 (1909).

♂. Head, tegulæ, and patagia orange-yellow; thorax pale grey-brown; palpi fuscous, yellow at base; antennæ with the shaft

grey, the branches blackish; pectus and fore coxæ yellow; abdomen grey-brown, the terminal segments yellowish, the medial segments with dorsal blackish streak. Fore wing pale grey-brown, the veins, discal fold in cell, and submedian fold fuscous Hind wing pale grey-brown with the veins fuscous.

Hab. Peru, Huancabamba, Cerro de Pasco (*Boettger*), type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

*1535 *b*. Agoræa occendeni. (Plate LVI. fig. 7.)

Agoræa ockendeni, Roths. Nov. Zool. xvi. p. 290 (1909).

♂. Head, tegulæ, and base of patagia yellow; thorax pale grey-brown; palpi black, yellow in front towards base; frons and antennæ blackish; fore legs blackish; abdomen yellowish with dorsal series of black spots and lateral streaks, the ventral surface pale grey-brown. Fore wing semihyaline brownish white, the veins and costa fuscous brown; the terminal area with short dark streaks in the interspaces. Hind wing semihyaline whitish, the costal area tinged with brown, the veins brown.

Hab. Peru, R. Inambari, La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

1536 *a*. Agoræa inconspicua. (Plate LVI. fig. 8.)

Agoræa inconspicua, Schaus, A. M. N. H. (8) vi. p. 405 (1910).

♀. Head and tegulæ yellow, the latter tinged with brown; palpi and antennæ black-brown; thorax and abdomen blackish brown, the shoulders with yellow spots, the anal tuft yellow. Wings uniform greyish brown.

Hab. Costa Rica, Juan Vinas (*Schaus*), 1 ♀. *Exp.* 32 millim.

1537. Agoræa semivitrea, (Plate LVI. fig. 9.)

Agoræa pellucida, Hmpsn. Cat. Lep. Phal. B.M. iii. p. 175 (nec Sepp).
Agoræa semivitrea, Roths. Nov. Zool. xvi. p. 291 (1909).

Venezuela, Caura R. (*Klages*), type † ♂ in Coll. Rothschild.

*1537 *a*. Agoræa clagesi. (Plate LVI. fig. 10.)

Agoræa klagesi, Roths. Nov. Zool. xvi. p. 290 (1909).

♀. Head and thorax pale grey-brown, the back of head with black point, the thorax with dorsal black streak; abdomen orange-yellow with dorsal and lateral series of black spots and sublateral series of black striæ, the ventral surface white. Fore wing pale grey-brown, the veins, discal fold in cell, and submedian fold with black-brown streaks, the interspaces of basal half with rather diffused streaks, of terminal half with fine streaks; some blackish suffusion just beyond lower angle of cell. Hind wing semihyaline whitish, the costal area and terminal area to submedian fold tinged with brown, the veins brownish.

Hab. Brazil, Upper Amazons, Fonte Boa (*Klages*), type † ♀ in Coll. Rothschild. *Exp.* 26 millim.

*1537 *b*. Agoræa nigrostriata.

Agoræa nigrostriata, Roths. Nov. Zool. xvi. p. 291 (1909), & xviii. pl. 4. f. 31.

♀. Head and thorax pale red-brown, the back of head, patagia, and dorsum of thorax with black streaks; palpi whitish, black at tips; fore tibiæ and the tarsi blackish; abdomen orange-yellow, the ventral surface pale grey-brown, a dorsal series of black points, lateral series of spots and sublateral series of striæ. Fore wing pale grey-brown; the veins, discal fold in cell, and submedian fold with dark streaks, the median nervure with strong black streak, the extremity of subcostal nervure, veins 7, 6, the veins just beyond lower end of cell, and the veins at termen with prominent black streaks; the interspaces of terminal area with slight brownish streaks. Hind wing pale semihyaline brown, the veins darker.

Hab. Argentina, Tucuman (*Monetti*), type † ♀ in Coll. Rothschild. *Exp.* 36 millim.

*1537 *c*. Agoræa ruficauda.

Automolis ruficauda, Roths. Nov. Zool. xvii. p. 26, pl. 13. f. 38 (1910).

♂. Head pale crimson; palpi brown, except 1st joint; lower part of frons whitish; antennæ brown; thorax brownish white, the tegulæ edged with crimson; legs pale crimson towards base; abdomen pale brownish, the extremity and ventral surface pale crimson. Fore wing uniform pale brownish ochreous. Hind wing brownish white.

Hab. Brazil, Minas Geraes, Preto, type † ♂ in Coll. Rothschild. *Exp.* 38 millim.

*1539 *a*. Bityrya pellucida.

Bombyx pellucida, Sepp, Surin. Vlind. ii. p. 175, pl. 76 (1848).

♂. Head and tegulæ pale yellow; antennæ and thorax pale grey-brown; fore coxæ yellow; abdomen orange-yellow with dorsal and lateral series of small black spots, the anal tuft and ventral surface brownish white. Fore wing pale grey-brown with a violaceous tinge, the veins darker. Hind wing whitish tinged with brown and violaceous, the veins slightly darker.

Hab. Venezuela, Caura R., La Union (*Klages*); Surinam, Maroewyn Valley, Aroewarwar Creek (*Klages*) in Coll. Rothschild. *Exp.* 26 millim.

1556. Æmilia rubriplaga.

♂. Hind wing hyaline, the inner area clothed with crimson hair, the cilia brown with pink marks at the veins.

W. Colombia, San Antonio (*Palmer*) in Coll. Joicey.

*1556 *a*. Æmilia affinis.

Carathis affinis, Roths. Nov. Zool. xvi. p. 274 (1909), & xviii. pl. 5. f. 14.

♂. Head and thorax chocolate-brown: frons yellowish white above, the vertex of head with pair of yellowish white patches, the tegulæ with yellowish white patches with brown bars on them, the outer edge of patagia yellowish white: pectus and legs orange-yellow, the tibiæ and tarsi banded with red-brown, the fore and mid tibiæ and tarsi with yellowish white bands: abdomen black-brown, the terminal segments with conjoined scarlet lateral patches with small black spots on them, the ventral surface yellow. Fore wing chocolate-brown: the basal area with patch of yellowish white spots between costa and vein 1: a medial yellowish white spot on costa: an oblique band of small yellowish white spots slightly defined by fulvous from costa above end of cell across the cell to above vein 1 near the basal patch: a patch of silvery white spots on terminal area from costa to vein 3, the spots running through the middle of the patch bidentate. Hind wing dark brown, the base slightly tinged with crimson, the lower part of cell and area just below and beyond it semihyaline: the underside with some yellowish on basal half of costa, a quadrate yellowish white spot below costa towards apex and point at apex.

Hab. Peru, Carabaya, Oconeque (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 38 millim.

*1556 *b*. Æmilia occendeni.

Carathis ockendeni, Roths. Nov. Zool. xvi. p. 274 (1909), & xxiii. pl. 5. f. 43.

♂. Head and thorax chocolate-brown: tegulæ yellow edged with chocolate, the patagia with some yellow on outer edge: pectus and legs pale crimson, the tibiæ and tarsi banded with brown: abdomen chocolate-brown, crimson at sides and crimson below. Fore wing chocolate-brown: some small yellow spots tinged with crimson at base, a subbasal point below costa and two pairs of small spots below the cell: two small obliquely placed antemedial spots below the cell with two rather larger yellower spots beyond them and two points beyond those: a small yellow spot in upper part of cell below middle of costa with a short streak beyond it below the costa: small white subterminal lunules above and below vein 7 with some yellow suffusion before and beyond them, a small lunule and point above vein 4 and point below it. Hind wing hyaline, the margins brown, the inner area crimson to beyond middle. Underside of fore wing with the base pale crimson emitting streaks below costa and on inner area: hind wing with the basal costal area pale crimson.

Hab. Venezuela, Merida in Coll. Dognin: Peru, Carabaya, S. Domingo, type † ♂ in Coll. Rothschild. *Exp.* 36 millim.

*1556 *c*. Æmilia occidentalis. (Plate LVI. fig. 11.)

Haliside occidentalis, French. Can. Ent. xxii. p. 46 (1890): Dyar, Cat. Lep. N. Am. p. 95.

♂. Head yellowish brown: frons with yellow bar: antennæ pale yellow-brown, thorax yellow: tegulæ with brown dorsal and

lateral streaks; outer edge of patagia brown; fore legs brownish in front; abdomen yellow, paler below. Fore wing hyaline; the costal area with four yellow patches alternating with brown patches: the inner area with two yellow patches alternating with brown patches; three irregular semihyaline brown bands arising from the costal patches, the two outer bands ending at the patches on inner margin, the 1st band not reaching inner margin but confluent with the 2nd; a subbasal red-brown spot on inner margin; veins and termen brownish yellow. Hind wing hyaline.

Hab. U.S.A., Colorado. *Exp.* 34 millim. This species is unknown to me, figured from a specimen in U.S. Nat. Mus.

*1556*d*. Æmilia mincosa. (Plate LVI. fig. 12.)

Halisidota mincosa, Druce, A. M. N. H. (7) xviii. p. 85 (1906).

Palpi and frons brown; vertex of head yellowish white; antennæ black; neck with crimson ring; thorax brown, the tegulæ and patagia with whitish patches; metathorax yellowish white with crimson patch behind; shoulders yellowish white; pectus crimson at sides; legs brown, the coxæ yellowish white, the tarsi ringed with white; abdomen brown with lateral and subventral yellowish stripes and slight segmental rings. Fore wing reddish brown with broad yellowish white costal fascia narrowing to apex, the median nervure and veins rising from it and vein 1 with yellowish streaks, the streak on vein 1 expanding at base; the fascia through the cell to termen below apex and the interspaces of terminal area deeper brown. Hind wing pale semihyaline brown; cilia yellowish white; the underside with the basal half of costal area yellowish white.

Hab. Colombia, San Antonio (*Palmer*), 1 ♂; Peru, Carabaya (*Ockenden*), type ♀ in Coll. Joicey. *Exp.* 42 millim.

*1556*e*. Æmilia fassli. (Plate LVI. fig. 13.)

Halisidota fassli, Dogn. Hét. Nouv. Am. Sud, iii. p. 11 (1911).

♂. Head, thorax, and abdomen ochreous tinged with rufous, the patagia with brown patches; palpi brown except towards tips; antennæ with the shaft white above; fore tibiæ and tarsi white in front. Fore wing ochreous; the costa and a streak on base of median nervure rufous; a slight brown mark on middle of inner margin; a brownish streak in discal fold beyond the cell met by an oblique brown streak from apex; a subterminal series of slight brownish marks from below vein 5 to inner margin; cilia rufous towards apex. Hind wing yellowish white.

Hab. Colombia, Paramo del Quindin (*Fassl*), type ♂ in Coll. Dognin. *Exp.* 40 millim.

*1556*f*. Æmilia suffusa. (Plate LVI. fig. 14.)

Æmilia suffusa, D. Jones, Trans. Ent. Soc. 1908, p. 149.

♂. Head and tegulæ black-brown; antennæ with the shaft ochreous; thorax ochreous suffused with brown; abdomen pale ochreous with dark brown sublateral stripes. Fore wing ochreous

irrorated with brown; a broad diffused dark brown fascia along median nervure and thence obliquely to termen below apex; diffused brown antemedial and medial bands from cell to inner margin; a diffused oblique bar from costa before apex; an indistinct oblique dentate line from apex to inner margin beyond middle; the interspaces of terminal area with short dark brown streaks. Hind wing ochreous white; the underside with faint diffused brownish bar from costa and slight brown marks on apical part of termen.

Hab. Brazil, Castro Paraña, type † ♂ in Coll. D. Jones. *Exp.* 40 millim.

*1556 *g.* Æmilia stuarti. (Plate LVI. fig. 15.)

Halisidota stuarti, Roths. Nov. Zool. xvi. p. 287 (1909).

♀. Head and thorax red-brown tinged with fuscous especially on vertex of head and tegulæ; pectus pale brown; legs fuscous brown, the femora ochreous above; abdomen ochreous, the ventral surface red-brown with blackish lateral stripes. Fore wing reddish brown irrorated with blackish; a diffused fuscous brown fascia along median nervure and thence obliquely to apex; a subterminal series of slight blackish spots; a blackish terminal line. Hind wing semihyaline whitish; the underside with the costal area tinged and irrorated with brown.

Hab. Brazil, Lr. Amazons, Reyes (*Stuart*), type † ♀ in Coll. Rothschild. *Exp.* 40 millim.

*1556 *h.* Æmilia castanea.

Æmilia castanea, Joicey, A. M. N. H. (8) xviii. p. 62, pl. xiv. f. 20 (1916).

♂. Head and thorax chocolate-brown, the tegulæ with dorsal yellow patch with pair of red-brown points on it; palpi orange at tips; pectus and legs orange, the tibiæ red-brown, the fore tibiæ with yellowish white patch at extremity, the mid tibiæ at extremity and the hind tibiæ near base and at extremity with orange bands, the tarsi banded dark brown and orange; abdomen black-brown with the hair on basal segments red-brown, lateral pale crimson stripes with series of black points, the claspers pale crimson, the ventral surface orange. Fore wing chocolate-brown; creamy white points near base in the cell and above vein 1 and a subbasal series of small creamy white spots from costa to vein 1 with some orange before the spot above vein 1; a small quadrate creamy white spot at middle of costa and minute spots on the cilia at apex and vein 3. Hind wing black-brown with the lower part of cell and interspaces below the cell and beyond lower angle semihyaline. Underside of fore wing with some yellow on basal area, the other markings as above and with yellow point on costa before apex; hind wing with some orange at base and a small orange spot below middle of costa.

Hab. Ecuador, R. Pastaza, El Topo (*Palmer*), type † ♂ in Coll. Joicey. *Exp.* 32 millim.

1559 *a*. Æmilia melanchra. (Plate LVI. fig. 16.)

Æmilia melanchra, Schaus, Pr. U.S. Nat. Mus. xxix. p. 226 (1905).

♂. Head and thorax very dark red-brown; abdomen fuscous with some red-brown hair at base. Fore wing red-brown thickly striated with dark brown; a round blackish discoidal patch; the terminal area suffused with blackish, narrowing to a point at apex and extending along inner margin to near base. Hind wing whitish suffused with brown especially on the veins and terminal area; the underside white with the costal area suffused and irrorated with brown.

Hab. Peru, Carabaya, 1 ♂, type † ♂ in U.S. Nat. Mus., Oconeque (*Ockenden*), 2 ♂. *Exp.* 44 millim.

1559 *b*. Æmilia brunneipars. (Plate LVI. fig. 17.)

Æmilia brunneipars, Hmpsn. A. M. N. H. (8) iv. p. 360 (1909).

♂. Head, thorax, and abdomen very dark brown, the vertex of head with a yellow spot; femora yellowish above. Fore wing ochreous brown thickly striated with dark brown; the costa, and inner margin except at base, dark brown, the terminal area obliquely from apex to lower angle of cell and thence to inner margin beyond middle dark brown; an elliptical black-brown discoidal spot; cilia blackish at base, whitish at tips. Hind wing whitish tinged with brown, the terminal area suffused with brown; cilia whitish at tips; the underside with the costal area and terminal area to vein 3 tinged with ochreous and striated with brown.

Hab. S.E. Peru, Agualani (*Ockenden*), 2 ♂ type; Oconeque (*Ockenden*). 1 ♂. *Exp.* 44 millim.

1561. Tyria jacobææ, insert:—

ab. *gilleti*, André, Journ. Nat. de Macon. ii. p. 52. fig. (1901); id. Ann. Soc. Ent. Belg. xlvi. p. 19 (1902).
confluens, Schultz, Ent. Zeitschr. Güben. xxii. p. 184 (1908).

Fore wing with the subcostal fascia confluent with the two terminal spots; hind wing with the costa not black.

ab. *fulvescens*, Spüler, Schmett. Eur. ii. p. 143 (1906).
The crimson replaced by orange-yellow.

ab. *grisescens*, Spüler, Schemtt. Eur. ii. p. 143 (1906).
Hind wing grey.

*1562 *a*. Euchlænidia neglecta.

Euchlænidia neglecta, Roths. Nov. Zool. xvii. p. 75, pl. 14. f. 3 (1910).

♂. Head, thorax, and abdomen reddish brown, the vertex of head and thorax with slight white streak and the latter with slight subdorsal streak; abdomen with lateral yellow fasciæ on basal

segments and a ventral stripe. Fore wing reddish brown, the veins paler; an oblique creamy white band from costa beyond middle to tornus. Hind wing yellow with an elliptical dark brown patch at tornus. Underside of fore wing with the band yellow.

Hab. Brazil, Sta. Catherina, type † ♂ in Coll. Rothschild. *Exp.* 28 millim.

1562. **Euchlænidia transcisa**, insert:—

Heliactinidia bimaculata, Druce, A. M. N. H. (7) xviii. p. 85 (1906).

♂. Hind wing with the upper edge of the dark patch on inner area more rounded, the yellow extending to nearer termen between vein 3 and submedian fold and with rounded outer edge.

Brazil, R. Grande do Sul, type † ♂ in Coll. Joicey.

*1562 *b*. **Euchlænidia occendeni.**

Euchlænidia ockendeni, Roths. Nov. Zool. xvii. p. 75 (1910), & xviii. pl. 6. f. 10.

♀. Head and thorax dark brown; palpi at base, sides of frons, and a patch on vertex of head yellow; pectus yellow; legs brown, the femora streaked with whitish; abdomen yellow with broad dorsal black-brown fascia, the ventral surface black-brown with patches of yellow on 1st three segments, the two following segments fringed with some yellow scales. Fore wing dark brown, the veins, discal and submedian folds with slight pale streaks; a slightly curved yellow band from costa beyond middle to inner margin near tornus towards which it narrows slightly. Hind wing yellow; a black terminal band expanding widely on apical area and below vein 2, narrow between veins 4 and 2.

Hab. Peru, Carabaya, R. Huacamayo, La Union (*Ockenden*), type † ♀ in Coll. Rothschild. *Exp.* 42 millim.

Page 188. Genus **EUBAPHE.**

Holomelina, Herr.-Schäff. was not published till 1856, and *Eubaphe*, Wlk. has priority.

1565. **Eubaphe coccinicaps**, insert:—

Crocota parvula, Dyar, Ent. News, Philad. iv. p. 140 (1893),

which has priority.

*1569 *a*. **Eubaphe calera.** (Plate LVI. fig. 18.)

Holomelina calera, Barnes & McD. Can. Ent. xxxix. p. 10 (1907); id. Contr. Nat. Hist. N. Am. i. 4, pl. xiii. f. 3 & xxvi. f. 4.

♀. Head and thorax dark brown; shoulders with crimson stripes; abdomen blue-black with slight lateral crimson stripes. Fore wing red-brown with crimson costal fascia and terminal band. Hind wing with the costal half crimson, the inner half black, a semicircular black patch on termen at discal fold. Underside of fore wing crimson except the cilia.

Hab. U.S.A., Arizona, Huachuca Mts. *Exp.* 34 millim. This species is unknown to me, figured from a drawing from type in Coll. W. Barnes; it may be the female of *H. ostenta*, H. Edw.

1573 *a*. Eubaphe ferruginosa. (Plate LVI. fig. 19.)

Crocota ferruginosa, Wlk. ii. p. 535 (1854).
Crocota immaculata, Reak. Proc. Ent. Soc. Phil. ii. p. 372 (1864).
Crocota tri-maculosa, Reak. Proc. Ent. Soc. Phil. ii. p. 373 (1864).

Head and thorax scarlet suffused with brown; palpi scarlet, brownish at tips; abdomen scarlet, sometimes with dorsal series of black points. Fore wing scarlet more or less completely suffused with brown and with traces of diffused discoidal spot and antemedial, medial, and subterminal bands. Hind wing scarlet with diffused subterminal spot above vein 5 and two conjoined spots towards tornus and sometimes a discoidal point; cilia with some fuscous at base. Underside scarlet.

ab. 1. *immaculata*. Head, thorax, and fore wing yellower scarlet, the markings slight, a whitish spot below base of vein 2 sometimes present; hind wing uniform scarlet.

Hab. Canada, Hudson's Bay (*Barnston*), 3 ♂ type; U.S.A., N. Atlantic States, N. York, 12 ♂. *Exp.* 25–30 millim.

*1575 *a*. Eubaphe mathani.

Holomelina mathani, Roths. Nov. Zool. xvii. p. 76, pl. 14. f. 4 (1910).

♀. Head and thorax reddish brown; abdomen orange with dorsal black stripe, the extremity and ventral surface brown. Fore wing reddish brown. Hind wing orange-scarlet with black terminal band, its inner edge excurved between veins 5 and 2.

Hab. Colombia, Cundinamarca, La Palma (*M. de Mathan*), type ♀ in Coll. Rothschild, Guadalite. *Exp.* 38 millim.

1576. Eubaphe opella ab. *nigricans*.

Larva. Forbes, J. N.Y. Ent. Soc. xviii. p. 163. f. 1 (1910).

Pale dull orange; warts and hair greyish black, the hair on head much denser, the hair on terminal segments much longer and directed backwards. 5.

1587 *a*. Eubaphe cyana. (Plate LVI. fig. 20.)

Holomelina cyana, Dogn. Ann. Soc. Ent. Belg. liii. p. 222 (1909).

♂. Head and thorax fuscous brown; abdomen fuscous black suffused with brilliant metallic blue; coxæ and ventral surface of abdomen dirty white, the fore coxæ with small yellow marks at sides. Fore wing dull olive-brown. Hind wing black suffused with metallic blue; a hyaline white fascia in lower part of cell and small wedge-shaped mark above base of vein 2.

Hab. Colombia, type ♂ in Coll. Dognin, R. Ogna, Cali, 1 ♂. *Exp.* 28 millim.

*1593 *a*. Virbia orola.

Virbia orola, Dyar, Pr. U.S. Nat. Mus. xlvii. p. 173 (1914).

♂. Head, thorax, and abdomen black, the neck with crimson ring, the ventral surface of abdomen grey. Fore wing black-brown. Hind wing black with yellow patch on costal half except at apex. Underside of fore wing with the basal two-thirds yellow except at costa; hind wing with yellow streak on inner margin.

Hab. Panama, Porto Bello (*Busck*). *Exp.* 25 millim. This species is unknown to me.

1595 *a*. Virbia flavifurca. (Plate LVI. fig. 21.)

Virbia medarda, Hmpsn. Cat. Lep. Phal. B.M. iii. p. 200 (part) nec Stoll.
Virbia flavifurca, Hmpsn. Nov. Zool. xxiii. p. 234 (1916).

♀. Head and thorax rufous; pectus orange-yellow; abdomen with dorsal black stripe with waved edges, the sides orange-yellow, the ventral surface red-brown. Fore wing uniform rufous with a fulvous tinge. Hind wing black; a broad orange-yellow fascia in and below the cell from base to near termen towards which it widens somewhat, its extremity rounded; an orange-yellow fascia on inner margin, expanding on termen to vein 1; a small subterminal orange-yellow spot in submedian fold. Underside of fore wing black-brown, the costa rufous, an orange-yellow wedge-shaped patch in and just below the cell to well beyond it where it expands to just below vein 2, its extremity obliquely curved and slightly sinuous, a minute black discoidal spot; hind wing with the orange-yellow extending to costa at base.

Hab. Venezuela (*Dyson*), 1 ♀ type. *Exp.* 40 millim.

1596 is Virbia mentiens, Wlk.

1596 *a*. Virbia medarda.

Noctua medarda, Stoll, Pap. Exot. iv. p. 107, pl. 345. F (1782).

♀. Differs from *V. mentiens* in the orange fascia of hind wing being much narrower towards extremity.

Hab. Guatemala, Vera Paz (*Champion*), 1 ♀; Panama (*J. J. Walker*), 1 ♀, Bugaba (*Champion*), 1 ♀; Colombia, Sta. Marta (*Bouchard*), 1 ♀; Surinam. *Exp.* 42 millim.

1596 *b*. Virbia birchi. (Plate LVI. fig. 22.)

Virbia birchi, Druce, A. M. N. H. (8) viii. p. 140 (1911).

♀. Head, thorax, and abdomen black-brown; pectus with some yellow below base of wings; abdomen with lateral yellow stripes, broad at base, narrowing to extremity. Fore wing black-brown slightly irrorated with yellow. Hind wing black-brown with yellow fascia on inner margin extending to tornus and broad fascia through the cell extending to towards termen where it ends in a

point. Underside of fore wing with wedge-shaped yellow fascia in and just below the cell expanding below and beyond end of cell where its extremity is rounded, some yellow at base of inner margin.

Hab. Guatemala, Vera Paz, Panzos (*Champion*), 1 ♀, Godman-Salvin Coll.; Colombia; Trinidad, Caparo (*Birch*), type † ♀ in Coll. Joicey. *Exp.* 42 millim.

1596*c*. **Virbia phalangia**, n. sp. (Plate LVI. fig. 23.)

Virbia minuta, Druce, Biol. Centr.-Am., Het. i. p. 144 (nec Feld.).
Virbia medarda, Hmpsn. Cat. Lep. Phal. B.M. iii. p. 200 (part), nec Stoll.

♂. Head and thorax rufous; pectus orange-yellow at sides; abdomen with dorsal black fascia with waved edges, the sides orange-yellow, the ventral surface red-brown. Fore wing uniform rufous. Hind wing black; a broad orange-yellow wedge-shaped fascia from below the costa to below the cell from base to near termen, and an orange-yellow fascia on inner margin. Underside of fore wing fuscous brown shading to rufous on apical area, a rather diffused orange-yellow fascia in the cell from base to near lower angle; hind wing with the orange-yellow extending to the costa at base.

♀. Underside of fore wing with wedge-shaped orange-yellow patch in and just below the cell to well beyond it where it extends to just below vein 2, its outer edge obliquely curved.

Hab. Mexico, Vera Cruz, Cordova (*Rumeli*), 2 ♂, 1 ♀ type, Godman-Salvin Coll. *Exp.*, ♂ 30, ♀ 38 millim.

1596*d*. **Virbia rosenbergi**. (Plate LVI. fig. 24.)

Virbia luteilinea, Druce, Biol. Centr.-Am., Het. i. p. 143 (part), nec Wlk.
Virbia medada, Hmpsn. Cat. Lep. Phal. B.M. iii. p. 200 (part), nec. Stoll.
Virbia rosenbergi, Roths. Nov. Zool. xvii. p. 77 (1910).

♂. Head and thorax dull red-brown slightly irrorated with yellowish; abdomen dorsally black-brown, the sides yellow, the ventral surface reddish brown. Fore wing dull red-brown irrorated with yellow. Hind wing orange-yellow, the costal area black except towards base; a black terminal band not reaching tornus and expanding widely below vein 2 with irregular inner edge. Underside of fore wing with wedge-shaped yellow patch from base through the cell to beyond it where it expands.

♀. Underside of fore wing with the yellow patch extending to nearer termen and with rounded outer edge.

Hab. Mexico, Teapa, Tabasco (*H. H. Smith*), 2 ♂; Nicaragua, Vera Paz (*Champion*), 1 ♂. Chontales (*Janson*), 1 ♂, Godman-Salvin Coll.; Colombia, R. Dagua (*Rosenberg*), type † ♀ in Coll. Rothschild; Ecuador, Paramba, S. Javier, Bulim. *Exp.*, ♂ 32, ♀ 42 millim.

*1596 *e*. Virbia underwoodi. (Plate LVI. fig. 25.)

Virbia underwoodi, Druce, A. M. N. H. (8) viii. p. 140 (1911).

♀. Head, thorax, and abdomen black-brown, the last with yellow lateral stripes except at extremity. Fore wing black-brown. Hind wing yellow; the terminal area black-brown, its inner edge incurved and slightly irregular below vein 3. Underside of fore wing with oblique quadrate yellow patch in and below end of cell; hind wing with the costa black-brown.

Hab. Costa Rica, Corillo (*Underwood*), type † ♀ in Coll. Joicey. *Exp.* 46 millim.

1596 *f*. Virbia punctata. (Plate LVI. fig. 26.)

Virbia punctata, Druce, A. M. N. H. (8) viii. p. 139 (1911).

♂. Head, thorax, and abdomen black-brown, the last with broad rather irregular yellow lateral stripes. Fore wing dark brown slightly irrorated with yellow; a small yellow discoidal spot. Hind wing yellow; the terminal area black-brown, its inner edge incurved in submedian interspace. Underside of fore wing with wedge-shaped yellow patch in end of cell; hind wing with the costa black.

Hab. Colombia, Siato, slopes of Choco, 2 ♂, type † ♂ in Coll. Joicey. *Exp.* 36 millim.

*1596 *g*. Virbia strigata.

Virbia strigata, Roths. Nov. Zool. xvii. p. 78, pl. 14. f. 5 (1910).

♂. Head and thorax brown mixed with yellow; abdomen black with yellow lateral stripes, the ventral surface yellow-brown. Fore wing brown thickly irrorated with yellow and with yellow fascia below median nervure to just beyond angle of cell, diffused below. Hind wing yellow with broad black terminal band, its inner edge excurved to vein 5; cilia greyish at tips; the underside with the costa black-brown.

Hab. Surinam, Backland; Brazil, Tipico; Ecuador, Paramba, type † ♂ in Coll. Rothschild. *Exp.* 32 millim.

*1596 *h*. Virbia minuta.

Terna minuta, Feld. Reis. Nov. pl. 105. f. 3 (1874).

Head and thorax red-brown, the tegulæ edged with orange in front; abdomen black-brown with orange lateral stripes, the ventral surface ochreous tinged with brown. Fore wing red-brown mixed with some ochreous. Hind wing black-brown; a broad orange fascia from base through the cell extending to well beyond it and to just below it where its lower edge is slightly sinuous; an orange fascia on inner margin confluent at base with the discal fascia, the black in submedian interspace ending in a point near base.

Underside of fore wing with an orange fascia below the cell, extending into end of cell and to just beyond it, confluent on basal area with an orange fascia on inner margin extending to beyond middle.

Hab. PERU, La Oroya (*Ockenden*) in Coll. Rothschild. *Exp.* 26–28 millim.

*1596 *i*. Virbia epione. (Plate LVI. fig. 27.)

Virbia epione, Druce, A. M. N. H. (8) viii. p. 140 (1911).

♂. Head and thorax dull red-brown; abdomen black-brown with yellow lateral stripes with blackish streaks below them, the ventral surface pale red-brown. Fore wing red-brown. Hind wing black-brown with yellow fascia on inner margin extending to tornus and yellow fascia through the cell to well beyond it, bifurcate at extremity. Underside of fore wing fuscous brown with yellow fascia below median nervure expanding into a patch in and below end of cell.

Hab. S.E. PERU, S. Domingo (*Ockenden*), type† ♂ in Coll. Joicey. *Exp.* 28 millim.

*1596 *j*. Virbia parva.

Virbia parva, Schaus, P. Z. S. 1892, p. 285; id. Am. Lep. p. 15, pl. 2. f. 15.

Virbia medarda, Hmpsn. Cat. Lep. Phal. B.M. iii. p. 200 (part), nec Stoll.

♂. Head and thorax red-brown; abdomen black-brown with lateral orange stripes, the ventral surface grey-brown. Fore wing deep red-brown with a minute orange discoidal spot. Hind wing black-brown; a broad orange fascia from base through the cell extending to well beyond it and to just below it where its lower edge is slightly sinuous; an orange fascia on inner margin, confluent at base with the discal fascia, the black ending in a point in submedian interspace near base. Underside of fore wing with a slight orange fascia on median nervure and discoidal spot.

♀. Underside of fore wing with a broad orange fascia in and below the cell, expanding into a patch beyond the cell extending down to vein 2.

Hab. ECUADOR, Quevedo (*Buckwald*), Chimbo (*Rosenberg*) in Coll. Rothschild; PERU. *Exp.*, ♂ 24–26, ♀ 36 millim.

*1596 *k*. Virbia affinis. (Plate LVI. fig. 28.)

Virbia affinis, Roths. Nov. Zool. xvii. p. 78 (1910).

♂. Head, thorax, and abdomen fuscous brown, the last with yellow lateral stripes. Fore wing fuscous brown with a very faint yellowish streak on median nervure expanding into an elliptical patch beyond end of cell, a minute yellow discoidal point. Hind wing yellow, the costal area black-brown; a broad terminal black-

brown band, the outer edge of the yellow area rounded, the terminal band expanding and with waved inner edge below vein 2. Underside of fore wing with faint yellowish streak along median nervure.

♀. Hind wing with the black terminal band not expanding so widely below vein 2 and obliquely cut off at tornus; underside of fore wing with large yellow wedge-shaped patch from subcostal nervure to submedian fold and from base to just beyond the cell.

Hab. Colombia, Sta. Marta, Onaca; Ecuador, Paramba (*Rosenberg*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 28, ♀ 42 millim.

*1596 *l.* Virbia endomelæna. (Plate LVII. fig. 1.)

Virbia endomelæna, Dogn. Het. Nouv. Am. Sud. vii. p. 18 (1914).

♂. Head and thorax dark reddish brown; antennæ black; abdomen black-brown with lateral yellow stripes, the ventral surface reddish brown. Fore wing dark reddish brown irrorated with greyish, a slight yellow discoidal point. Hind wing orange-yellow, the terminal area black-brown expanding at apex and from below, vein 3 running up on inner area to a point close to the base. Underside of fore wing with slight yellowish discoidal spot.

Hab. Colombia, Muzo (*Fassl*). type † ♂ in Coll. Dognin. *Exp.* 30 millim.

*1597 *a.* Virbia fasciata.

Virbia fasciata, Roths. Nov. Zool. xvii. p. 79 (1910), & xviii. pl. 6. f. 36.

♀. Head and thorax dark reddish brown; abdomen dark reddish brown with lateral yellow stripes except on basal and anal segments. Fore wing uniform dark reddish brown. Hind wing black-brown with a rather broad orange-yellow fascia from close to base through the cell to towards termen, extending to just below the cell and above vein 6. Underside of fore wing with a wedge-shaped yellow fascia above median nervure from near base expanding beyond the cell into a patch extending from vein 6 to below vein 3.

Hab. W. Ecuador, Karamba, Bulim; Brazil, Tijuco, type † ♀ in Coll. Rothschild. *Exp.* 48 millim.

*1597 *b.* Virbia endophæa. (Plate LVII. fig. 2.)

Virbia endophæa. Dogn. Hét. Nouv. Am. Sud. i. p. 10 (1910).

♂. Head and thorax dull red-brown; antennæ blackish; pectus and legs grey-brown with some yellow below the wings; abdomen black with lateral yellow fasciæ except at base, the ventral surface grey-brown. Fore wing uniform dull red-brown. Hind wing black with a wedge-shaped orange patch in and beyond the cell, its outer edge produced at veins 3, 4. Underside of fore wing with a triangular orange patch in, below, and beyond the cell, its outer edge rounded.

Hab. Bolivia, Corvico, type † ♂ in Coll. Dognin. *Exp.* 34 millim.

*1598 *a*. Virbia ovata. (Plate LVII. fig. 3.)

Virbia ovata, Roths. Nov. Zool. xvii. p. 78 (1910).

♀. Head, thorax, and abdomen fuscous brown, the last with lateral maculate yellow stripes except on terminal segments. Fore wing uniform dark reddish brown. Hind wing black-brown with oblique elliptical yellow subterminal patch from below costa to vein 3. Underside of fore wing with elliptical yellow patch from upper angle of cell to vein 2.

Hab. Brazil, Sta. Catherina, type † ♀ in Coll. Rothschild. *Exp.* 50 millim.

*1598 *b*. Virbia rotundata. (Plate LVII. fig. 4.)

Virbia rotundata, Schaus, Trans. Am. Ent. Soc. xxx. p. 138 (1904).

♂. Head and thorax dark olive-brown; neck with slight orange ring above; abdomen black-brown with small orange lateral marks except on basal and anal segments. Fore wing dark olive-brown. Hind wing black-brown with elliptical orange patch between veins 8 and 2 from cell before extremity to near termen. Underside of fore wing with wedge-shaped orange patch with dentate outer edge from middle of cell to well beyond its extremity; hind wing with the patch similar to that on upperside.

Hab. Brazil, Castro Paraña, type † ♂ in U.S. Nat. Mus. *Exp.* 36 millim.

*1598 *c*. Virbia fluminea. (Plate LVII. fig. 5.)

Virbia fluminea, Schaus, A. M. N. H. (8) ix. p. 39 (1912).

♂. Head, thorax, and abdomen dark olive-brown; pectus, legs, and ventral surface of abdomen brownish white, some crimson below the fore coxæ. Fore wing uniform dark olive-brown. Hind wing black-brown with a large oblique elliptical yellow patch from costa beyond middle to below vein 3 towards termen. Underside of fore wing with large medial yellow patch from below costa to below submedian fold; hind wing with the base of costa yellow.

Hab. Costa Rica, Sixola R. (*Schaus*), type † ♂ in U.S. Nat. Mus. *Exp.* 28 millim.

1599 *a*. Virbia lehmanni. (Plate LVII. fig. 6.)

Virbia lehmanni, Roths. Nov. Zool. xvii. p. 77 (1910).

♂. Head and thorax fuscous brown; abdomen fuscous brown with broad lateral yellow stripes. Fore wing uniform fuscous brown. Hind wing yellow, the costa black-brown to base; a terminal black-brown band expanding slightly towards costa and moderately below vein 2, reaching the tornus.

Hab. Colombia, Popayan (*Lehmann*), type † ♂ in Coll. Rothschild, R. Dagua, S. Antonio (*Fassl*), 1 ♂. *Exp.* 38 millim.

*1599 *b*. **Virbia palmeri.** (Plate LVII. fig. 7.)

Virbia palmeri, Druce, A. M. N. H. (8) viii. p. 139 (1911).

♂. Head, thorax, and abdomen black-brown, the last with yellow lateral stripes except towards extremity. Fore wing dark brown slightly irrorated with yellow. Hind wing yellow; the terminal area black-brown, its inner edge expanding on costal area, expanding and waved below vein 3. Underside of fore wing uniform fuscous brown; hind wing with the costa black-brown.

Hab. Colombia. S. Antonio (*Palmer*), type † ♂ in Coll. Joicey. *Exp.* 40 millim.

*1599 *c*. **Virbia flemmingi.** (Plate LVII. fig. 8.)

Virbia flemmingi, Roths. Nov. Zool. xvii. p. 78 (1910).

♂. Head, thorax, and abdomen fuscous brown, the last with faint reddish brown lateral stripes. Fore wing uniform fuscous brown. Hind wing yellow with broad black-brown terminal band occupying more than one-third of wing and with slightly irregular inner edge, the underside with the costal area black-brown to near base.

Hab. Ecuador. Salidero (*Flemming & Miquetta*), type† ♂ in Coll. Rothschild, Bulim. Carondelet, R. Cayapas. *Exp.* 30 millim.

Page 201. Genus **ANTIOTRICHA**, insert:—

	Type.
Agaposoma, Feld. Reis. Nov. p. 1 (1874). non descr.	*marcescens*.

*1601 *a*. **Antiotricha marcescens.**

Agaposoma marcescens, Feld. Reis. Nov. pl. 99. f. 24 (1874).

♂. Head and thorax yellow tinged with rufous, the palpi, frons, and antennæ black-brown; legs brown tinged with metallic blue; abdomen with the base yellow tinged with crimson, then brown to middle, then brown suffused with metallic blue, the extremity and ventral surface fulvous yellow. Fore wing fulvous yellow, the veins and a patch at middle of inner area red-brown; a small postmedial blackish spot on costa. Hind wing black-brown, the base, costal area, inner margin to beyond middle, and termen except towards tornus yellow.

♀. Fore wing without the postmedial blackish spot on costa. Hind wing with the brown reduced to a fascia in submedian interspace from near base to the postmedial band from vein 3 to tornus and a round spot below vein 6.

Hab. Brazil, Amazons (*Bates*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 52, ♀ 72 millim.

1604. Euprepia striata, insert:—

ab. *bipunctata*, Staud. Iris, v. p. 345 (1892).
Smaller and paler; fore wing with the two discoidal points separate.
E. Siberia, Dahuria.
ab. *albida*, Schultz, Intern. Ent. Zeit. iv. p. 26 (1910).
Head, thorax, and fore wing with the ground-colour white.
ab. *seminigra*, Th. Mieg. Le Nat. (2) xxiv. p. 34 (1910).
ab. *intermedia*, Oberth. Ét. Lép. Comp. v. pp. 158, 336, pl. lxxxiii. f. 781 (1911).
=ab. *funerea*.
ab. *xanthoptera*, Oberth. Ét. Lép. Comp. v. pp. 159, 336, pl. lxxxiii. ff. 779–80 (1911).
=ab. *pallida*.

1605. Euprepia cribraria, insert:—

var. *sibirica*, Staud. Iris, v. p. 346 (1892).
Fore wing without black spots.
E. Siberia, Dahuria.
ab. *anglica*, Oberth. Ét. Lép. Comp. v. p. 171, pl. lxxx. ff. 735–6 (1911).
ab. *nevadensis*, Oberth. Ét. Lép. Comp. v. p. 175, pl. lxxx. ff. 733–4 (1911).
ab. *rondoui*, Oberth. Ét. Lép. Comp. v. p. 179, pl. lxxx. ff. 740–1 (1911).
ab. *murina*, Oberth. Ét. Lép. Comp. v. p. 334, pl. lxxx. f. 742 (1911).
ab. *leucomelas*, Oberth. Ét. Lép. Comp. v. p. 179, pl. lxxx. f. 743 (1911).
ab. *canigulensis*, Oberth. Ét. Lép. Comp. v. p. 180, pl. lxxx. ff. 744–5 (1911).
ab. *vernetensis*, Oberth. Ét. Lép. Comp. v. p. 180, pl. lxxx. ff. 737–8 (1911).
ab. *nevadensis*, Ribbé, Iris, xxiii. p. 351 (1912).
ab. *pseudozatima*, Krul. Rev. Russ. Ent. xi. p. 445 (1911).
Fore wing fuscous with the veins white.—E. Russia.
ab. *lætifica*, Stauder, Boll. Soc. Adriat. xxvii. p. 105 (1913).—Istria.

1605 *a*. Euprepia libyssa.

Euprepia libyssa, Püng. Soc. Ent. xxii. p. 25 (1907); Seitz, Gr. Schm. pal. ii. p. 72, pl. 13, i.
Emydia powelli, Oberth. Bull. Soc. Ent. Fr. 1907, p. 339: id. Ét. Lép. Comp. iii. pl. xiii. ff. 26–27.
Emydia haroldi, Oberth. Bull. Soc. Ent. Fr. 1907, p. 331; id. Ét. Lép. Comp. iii. pl. xiii. f. 24.
Coscinia caligans, Turati, Nat. Sicil. xx. p. 45, pl. iii. f. 21 (1908).
Emydia powelli punctata, Oberth. Ét. Lép. Comp. iii. p. 406, pl. xiii. f. 25 (1909).

♂. Head and thorax pale brown; frons bright yellow; patagia with black spots; abdomen yellow with dorsal and lateral series of black spots. Fore wing pale brown; the costal edge fuscous; a subbasal black point below the cell; obliquely placed antemedial points in and below cell; a medial series of six spots

angled outwards in cell; a postmedial series consisting of two discoidal spots, then an incurved series of five spots. Hind wing fuscous.

ab. 1. *haroldi*. Fore wing white with five series of black points; hind wing black.

ab. 2. *caligans*. Fore wing more uniform brown with the series of points reduced.—Sicily.

Hab. Sicily, Mt. Etna; Algeria, Magenta, type† ♂ in Coll. Püngeler, Sebdou, Guelt-es-Stel (*Rothschild*), 2 ♂. *Exp.* 28 millim.

Larva. Oberth. Ét. Lép. Comp. v. ii. pls. J. k & l, & vi. pl. cxxxv. ff. 1186–91, & J. z. f. 4.

*1606 *a*. Heliactinidia tornensis. (Plate LXVI. fig. 10.)

Heliactinidia tornensis. Prout, A. M. N. H. (9) ii. p. 417 (1918).

♂. Head, thorax, and abdomen black, the head with minute white points behind antennæ, the tegulæ yellow at outer edge, the patagia with oblong yellow patch, the abdomen with lateral yellow stripes and ventral spots on two basal segments. Fore wing black; a chrome-yellow fascia below the cell to just beyond origin of vein 2; an erect yellow postmedial band from below costa to vein 1, its edges slightly sinuous, its inner edge slightly curved inwards in lower end of cell and its lower extremity somewhat attenuate. Hind wing orange-yellow; a black terminal band with sinuous inner edge, expanding at costa to above end of cell and angled inwards to acute points above and below vein 1. Underside of fore wing with the inner edge of the postmedial band expanding inwards below end of cell and almost confluent with the stripe.

Hab. Colombia, Torne, type† ♂ in Coll. Joicey. *Exp.* 32 millim.

*1607 *a*. Heliactinidia dispar. (Plate LXVI. fig. 11.)

Brachyglene dispar, Warr. Nov. Zool. xiv. p. 197 (1907).

♀. Head, thorax, and abdomen fuscous black, the genæ yellow, the patagia yellow edged with black. Fore wing fuscous brown suffused with fulvous yellow except the costa and the apical area which narrows to a point at vein 1, the veins fulvous yellow except on the dark areas. Hind wing orange-yellow, the costal and terminal areas black, the latter expanding into a wedge-shaped patch at submedian fold to below end of cell. Underside orange-yellow, the costa, apical area, and the termen narrowly black, the last expanding into a spot at vein 1, some black suffusion on basal inner area; hind wing with orange-yellow streak below costa to beyond middle.

Hab. Argentina, Tucuman (*Steinbach*), type† ♀ in Coll. Rothschild. *Exp.* 26 millim.

*1608 *a*. **Heliactinidia flavivena.** (Plate LVII. fig. 9.)

Heliactinidia flavivena, Dogn. Ann. Soc. Ent. Belg. liii. p. 222 (1909).

♂. Head and thorax pale brown mixed with yellow; palpi black, yellow at base; antennæ black, the basal joint yellow; abdomen yellow with dorsal black streak; pectus and legs pale brown, the base of legs yellow. Fore wing pale brown, the veins streaked with yellowish; an ill-defined greyish white slightly oblique medial band, narrowing somewhat to inner margin; cilia whitish at tips. Hind wing yellow. Underside of fore wing yellow with the basal half of costa blackish.

Hab. Colombia, Cali, type † ♂ in Coll. Dognin. *Exp.* 36 millim.

1608 *b*. **Heliactinidia sitia.** (Plate LVII. fig. 10.)

Heliactinidia sitia, Schaus, A. M. N. H. (8) vi. p. 406 (1910).

♀. Head and tegulæ yellow with a brown patch on vertex of head; palpi and antennæ brown; thorax pale grey-brown; pectus yellow; legs brown; abdomen orange-yellow with dorsal black streak. Fore wing pale fulvous brown, the veins, discal and submedian folds yellowish; a narrow oblique yellowish band from costa beyond middle to tornus. Hind wing semihyaline orange-yellow. Underside of fore wing orange-yellow.

Hab. Costa Rica, Tuis (*Schaus*), 1 ♀, Sixola R., Juan Vinas, El Sitio. *Exp.* 48 millim.

Genus **LAFAJANA**.

Type.

Lafajana, Dogn. Le Nat. (2) v. p. 257 (1891)..... *cupra*.

Proboscis absent; palpi porrect to beyond the frons, the 2nd joint fringed with long hair below; eyes rather small; antennæ of male bipectinate with moderate branches to apex; head, thorax, and abdomen clothed with long thick hair; hind tibiæ with one pair of spurs. Fore wing with vein 3 from well before angle of cell; 5 from just above angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with the tornus somewhat lobed; the cell long; vein 3 from well before angle; 5 from just above angle; 6, 7 shortly stalked; 8 from before middle of cell.

In key differs from *Microdota* in the proboscis being absent, the eyes small, the head, thorax, and abdomen clothed with long hair.

*1608 *b*. **Lafajana cupra.**

Lafajana cupra, Dogn. Le Nat. (2) v. p. 258 (1891); id. Lép. Loja, p. 91, pl. 9. f. 17; Kirby, Cat. Lep. Het. p. 926.

♂. Head, thorax, and abdomen black-brown; vertex of head ochreous yellow; shoulders, sides of thorax, pectus, coxæ, base of abdomen, and ventral surface except at base orange-red; legs shot with blue. Fore wing black-brown, the cell, a patch below it, and the interspaces between veins 2 and 5 except at termen

hyaline; some pale silvery blue at base; greenish yellow patches below the middle of the hyaline patch below the cell and on middle of inner margin, and small silvery blue spots above middle of vein 5

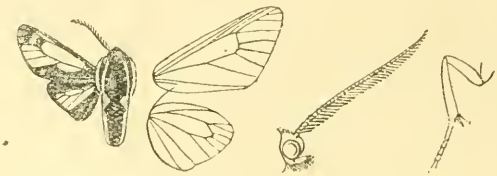

Fig. 83.—*Lafajana cupra*, ♂. ½.

and at tornus. Hind wing black, the lower part of cell, a streak below it and vein 2 and the interspaces between veins 2 and 5, except at termen, hyaline; some orange-red at base.

Hab. Ecuador, Loja, type † ♂ in Coll. Dognin. *Exp.* 34 millim.

Page 206. Genus **CYANARCTIA**, insert:—

	Type.
Nyctochroa, Feld. Reis. Nov. p. 7 (1874), non descr.	*basiplaga*.

*1610 *a*. **Cyanarctia flavinigra.** (Plate LVII. fig. 11.)

Cyanarctia flavinigra, Dogn. Hét. Nouv. Am. Sud, i. p. 10 (1910).

♀. Head, thorax, abdomen, and wings black-brown with a faint bluish gloss. Fore wing with broad oblique orange-yellow band from just below costa beyond middle to just before termen between veins 3 and 1, its edges very slightly waved and its inner edge slightly hooked above tornus. Underside of hind wing with a patch of brownish yellow irroration beyond lower angle of cell.

Hab. W. Colombia, Jiminez, type † ♀ in Coll. Dognin. *Exp.* 44 millim.

*1610 *b*. **Cyanarctia percurrens.** (Plate LXVI. fig. 12.)

Ephialtias percurrens, Warr. Nov. Zool. xii. p. 314 (1905).

♀. Head, thorax, and abdomen black tinged with blue. Fore wing black glossed with blue; an oblique orange-yellow band from costa above end of cell to tornus where its extremity is rounded. Hind wing uniform black glossed with blue.

Hab. Peru, Carabaya, Limbani (*Ockenden*), type † ♀ in Coll. Rothschild. *Exp.* 34 millim.

1610 *c*. **Cyanarctia carpentera.**

Brycea carpintera, Schaus, A. M. N. H. (8) vi. p. 406 (1910).

Antennæ of male with bristles and cilia.

♂. Head, thorax, and abdomen black with a bluish tinge. Fore wing with the basal half orange, its outer edge excurved

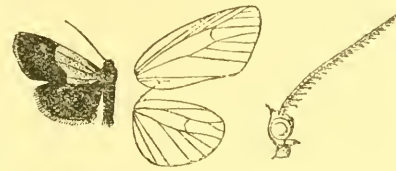

Fig. 84.—*Cyanarctia carpentera*, ♂. ½.

from costa to median nervure, then oblique, the basal costal area black; the terminal half black tinged with blue. Hind wing black tinged with blue, the basal half of costal area orange.

One specimen has veins 4, 5 of hind wing coincident.

Hab. Costa Rica, Carpentera (*Schaus*), 2 ♂. *Exp.* 26 millim.

*1610 *d.* **Cyanarctia basiplaga.** (Plate LVII. fig. 12.)

Nyctochroa basiplaga, Feld. Reis. Nov. pl. 106. f. 27 (1874); Kirby, Cat. Lep. Het. p. 903.

Hypomolis lithosiaphila, Dyar, Pr. U.S. Nat. Mus. xxxviii. p. 235 (1910).

♂. Head, thorax, and abdomen black with a bluish tinge. Fore wing black tinged with blue, the basal half orange-yellow from below costa to above inner margin, the black on costa wider towards base and the outer edge of the patch obliquely incurved below the cell. Hind wing black tinged with blue, the basal half of costa yellow.

Hab. Mexico, Tehuacan (*Müller*). *Exp.* 28 millim. This species is unknown to me; figured from a drawing from type *lithosiaphila* in U.S. Nat. Mus.

Page 207. Genus **BELEMNIA**, insert:—

Type.

Pompostola, Hübn. Verz. p. 120 (1827) . . . . . *eryx.*

which has precedence.

1611. **Belemnia eryx**, insert (syn.):—

Belemnia dubia, Kirby, Wytsman's Hübn. Exot. Schmett. p. 123 (1902).

1615. **Belemnia mygdon**, insert:—

Belemnia mygdon, marthæ, Roths. Nov. Zool. xvi. p. 295 (1909).

An aberration with a crimson bar beyond the cell of fore wing on upperside.

Colombia, Sta. Marta, Onaca (*Engelke*), type † ♂ in Coll Rothschild.

*1618 *a*. Diospage steinbachi.

Diospage steinbachi, Roths. Nov. Zool. xvi. p. 295 (1909), & xviii. pl. 4. f. 13.

♂. Head and thorax black; metallic blue spots at sides of frons, between antennæ, on inner and outer edge of tegulæ and on prothorax, the dorsum of thorax and patagia tinged with metallic gold; pectus with metallic blue spots, the legs streaked with ochreous and the hind tibiæ with metallic blue; abdomen black with metallic blue subdorsal spots on four basal segments and a lateral series of spots, the ventral surface crimson except at base and extremity with metallic blue sublateral spots on two basal segments. Fore wing black, the interspaces of basal half suffused with metallic gold; an obsolescent crimson spot in end of cell; a postmedial oblique golden bar from vein 7 to below 4. Hind wing black with some metallic blue at base produced as streaks on median nervure and vein 1. Underside of fore wing with irregular U-shaped crimson mark in, beyond, and below the cell; hind wing with lunulate crimson subterminal band between veins 6 and 2.

Hab. Bolivia, Sara Prov., Sta. Cruz de la Sierra (*Steinbach*), type † ♂ in Coll. Rothschild, Buenavista. *Exp.* 48 millim.

*1619 *a*. Diospage semimarginata. (Plate LVII. fig. 13.)

Diospage semimarginata, Roths. Nov. Zool. xvi. p. 295 (1909).

♂. Head and thorax black; the frons and patches on vertex of head and tegulæ and streaks on thorax metallic blue, the patagia with golden streaks; patches on pectus and streaks on legs metallic blue; abdomen black with metallic blue segmental lines and slight dorsal golden marks, the ventral surface crimson except at base and extremity and with sublateral blue-green marks at base. Fore wing black, the basal area suffused with metallic gold in the interspaces except at costa and inner margin, its outer edge oblique and extending below costa to middle; metallic blue points at base of vein 1 and lower angle of cell; an oblique crimson postmedial bar between veins 7 and 3. Hind wing black with some metallic blue at base produced as streaks on median nervure and vein 1; the termen with some crimson at apex and a narrow band between veins 5 and 1; the underside with metallic blue spots at angles of cell and crimson terminal band from apex to vein 1 with waved inner edge.

Hab. Ecuador, Paramba (*Rosenberg*), type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

*1620 *a*. Diospage carilla. (Plate LVII. fig. 14.)

Diospage carilla, Schaus, A. M. N. H. (8) vi. p. 406 (1910).

♀. Head and thorax black, the frons, vertex and back of head, tegulæ, and patagia with patches of brilliant metallic blue, the

dorsum of thorax with metallic blue streak; pectus and coxæ with metallic blue patches; abdomen black with metallic green suffusion except at base, lateral metallic blue patches except on 5th and 6th segments, sublateral patches except on terminal segments, the four terminal segments ventrally crimson. Fore wing black; the basal area suffused with metallic green except at costa and inner margin; an oblique yellow postmedial band from below costa to above vein 2 towards termen, rounded below. Hind wing black, the basal half suffused with metallic blue extending as streaks beyond angles of cell and on vein 1 to beyond middle. Underside of fore wing with some metallic blue in and below base of cell; hind wing with streak on basal half of costa, patch in base of cell, streaks below the cell, and spots at angles of cell.

Hab. Costa Rica, Carillo (*Schaus*), type † ♀ in U.S. Nat. Mus. *Exp.* 50 millim.

*1621 *a*. Diospage violitincta.

Diospage violitincta, Roths. Nov. Zool. xvi. p. 295 (1909), & xviii. pl. 4. f. 12.

♂. Head, thorax, and abdomen black; coxæ with metallic blue patches; ventral surface of abdomen scarlet except at base and extremity. Fore wing black, the interspaces of basal half suffused with metallic gold with oblique outer edge. Hind wing black with a slight blue gloss on basal area. Underside of fore wing with the cell and area just below and beyond it glossed with blue; hind wing with the basal half of costal area glossed with blue and slight striæ on discocellulars.

Hab. Colombia, Cauca, Corinto (*Paine & Brinkley*), type † ♂ in Coll. Rothschild. *Exp.* 52 millim.

*1621 *b*. Diospage engelcei.

Diospage engelkei, Roths. Nov. Zool. xvi. p. 296 (1909), & xviii. pl. 4. f. 14.

♂. Head and thorax black, the base of palpi, frons, genæ, spots on shoulders and pectus, and streaks on legs brilliant metallic blue; abdomen black shot with blue and with brilliant metallic blue lateral patches at base, the ventral surface bright crimson except at base and extremity. Fore wing black suffused with peacock-green except on the veins and terminal area. Hind wing velvety black with a brilliant metallic blue patch at base with irregular outer edge. Underside of fore wing brilliant metallic blue to just beyond the cell except on inner area, leaving a black discoidal spot; hind wing with large brilliant metallic blue patch at base with irregular outer edge, elongate spot beyond upper angle of cell and rounded spot beyond lower angle.

Hab. Colombia, Sta. Marta, Onaca, type † ♂ in Coll. Rothschild; Peru, Chanchamayo in Coll. Dognin. *Exp.* 56 millim.

1622 *a*. Belemniastis eucyane.

Entomis eucyane, Feld. Reis. Nov. pl. 102. f. 14 (1875), nec f. 16.

♂. Head, thorax, and abdomen black suffused with brilliant metallic blue; patagia with slight whitish streak and edged with whitish; frons with slight white marks at sides below; legs grey-brown streaked with whitish; ventral surface of abdomen crimson with white segmental lines and some white on anal segment. Fore wing black, the basal half with brilliant metallic blue fasciæ occupying the greater part of the interspaces; an oblique crimson band from below middle of costa to above inner margin towards tornus, pointed at lower extremity; an oblique crimson band from below costa beyond middle to near termen above vein 3. Hind wing black with brilliant metallic blue fasciæ on basal half, on vein 1 extending almost to termen; a crimson subterminal spot from just above vein 4 to above 2; the underside with metallic blue postmedial spot below costa; the cilia white towards tornus and the hair on inner margin white.

Hab. Brazil, type† ♂ in Coll. Rothschild, Amazons, R. Madeira, Allianca (*Hoffmanns*). 1 ♂. *Exp.* 42 millim.

Genus CHLOROCRISIA.

Type.
Chlorocrisia, Hmpsn. A. M. N. H. (8) viii. p. 408 (1911).. *irrorata*.

Proboscis aborted, minute; palpi porrect, short, fringed with long hair below; a long flattened downcurved corneous spine from between antennæ, pointed at extremity; eyes large, round; antennæ of male bipectinate with moderate branches to apex; thorax clothed with long hair; tibiæ fringed with long hair, the hind tibiæ with two pairs of spurs; abdomen dorsally clothed with long hair towards base. Fore wing with the apex rounded, the termen evenly curved; vein 3 from near angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with veins 3 and 5 from near angle of cell; 6, 7 from upper angle; 8 from middle of cell.

In key differs from *Apantesis* in the frons having a long flattened down-turned spine from between the antennæ.

*1626 *a*. Chlorocrisia irrorata.

Chlorocrisia irrorata, Roths. Nov. Zool. xvii. p. 119. pl. 14. f. 40 (1910).

♂. Head, tegulæ, and patagia pale yellow-green, the palpi and sides of frons brown, the antennæ rufous, the tegulæ with some brown hair at middle, the patagia with brown patches; dorsum of thorax chocolate-brown with some green hair on metathorax; pectus ochreous white with some orange-yellow hair; legs ochreous white and brown; abdomen clothed with ochreous white hair and orange hair dorsally on basal segments. Fore wing pale yellow-green thickly irrorated with chocolate-brown, the basal half of costa, median nervure, and vein 1 with brown streaks; antemedial line brown, diffused, angled outwards at submedian fold to the diffused sinuous brown medial line; a brown discoidal lunule; postmedial line brown, angled outwards at vein 4 to towards termen, then incurved

and slightly waved. Hind wing white, the inner margin slightly tinged with yellow, a few brown scales on the veins and inner area ;

Fig. 85.—*Chlorocrisia irrorata*, ♂. ½.

the underside with the costal area faintly tinged with green and slightly irrorated with brown, a brown discoidal striga.

Hab. Peru, Huancabambo, Cerro de Pasco (*Boettger*), type † ♂ in Coll. Rothschild. *Exp.* 36 millim.

Genus **EPICRISIAS.**

Type.

Epicrisias, Dyar, Pr. U.S. Nat. Mus. xlii. p. 55 (1912)..... *eschara*.

Proboscis fully developed ; palpi obliquely porrect, smoothly scaled, the 2nd joint extending about the length of head, the 3rd long and spatulate ; frons smooth ; antennæ of male bipectinate with moderate branches to apex ; fore tibiæ without claw, the hind tibiæ with two pairs of spurs. Fore wing triangular, the apex rounded, the termen obliquely curved ; vein 3 from close to angle of cell ; 4. 5 from angle ; 6 from upper angle ; 7, 8. 9 stalked ; 10, 11 from cell. Hind wing with vein 3 from close to angle of cell ; 4. 5 from angle ; 6. 7 from upper angle ; 8 from middle of cell.

In key differs from *Hypocrisias* in the palpi being long and smoothly scaled with the 3rd joint spatulate.

1626 *b*. Epicrisias eschara.

Epicrisias eschara, Dyar, Pr. U.S. Nat. Mus. xlii. p. 55 (1912).

Head fulvous yellow, the palpi except the 1st joint, frons, and

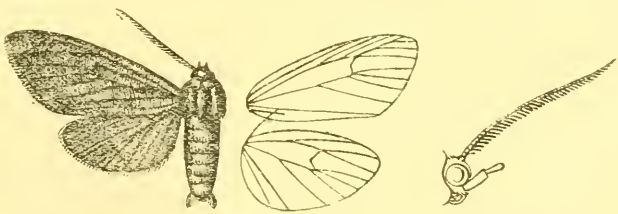

Fig. 86.—*Epicrisias eschara*, ♂. ½.

antennæ black ; thorax and abdomen fulvous orange, the shoulders

with black streaks; legs, except the coxæ, black; abdomen with lateral black streaks. Fore wing orange with a flesh-pink tinge, the costal area yellower, the basal half of wing clothed with slight ridges of scales except towards costa. Hind wing orange with a flesh-pink tinge, the costal area yellower.

Hab. Mexico, Guanajuato (*Dugès*), 1 ♂, Godman-Salvin Coll., Zacualpan (*Müller*), type ♀ in U.S. Nat. Mus. *Exp.* 56 millim.

*1627 *a*. Hypocrisias gemella. (Plate LVII. fig. 15.)

Hypocrisias gemella, Schaus, A. M. N. H. (8) vii. p. 186 (1911).

♂. Head, thorax, and abdomen ochreous yellow mixed with brown, the tegulæ edged with dark brown; palpi and frons black-brown; antennæ brown; tarsi black-brown with ochreous rings. Fore wing ochreous yellow thickly irrorated with red-brown, the veins streaked with brown; an antemedial yellow spot defined by brown below costa, streak above median nervure and two spots in submedian interspace, a brown shade beyond them, oblique from costa to median nervure and with yellow spot beyond it on costa; a yellow spot defined by brown in upper extremity of cell with another above it on costa; a brown shade beyond the cell from costa to vein 4; three small postmedial yellow spots defined by brown from below costa to discal fold, two in submedian interspace and a slight spot above inner margin; a subterminal series of small yellow spots defined by brown from below costa to vein 1, the spot in discal fold further from termen and the spot below vein 4 minute and brown; a fine brown terminal line; cilia brownish. Hind wing pale yellow, the veins, termen, and cilia reddish brown; the underside pale yellow.

Hab. Costa Rica, Juan Vinas (*Schaus*), type + ♂ in U.S. Nat. Mus. *Exp.* 42 millim.

*1627 *b*. Hypocrisias berthula. (Plate LVII. fig. 16.)

Hypocrisias berthula, Dyar, Pr. U.S. Nat. Mus. xlii. p. 54 (1912).

♂. Head yellowish white, the palpi and antennæ black; thorax and abdomen yellowish suffused with brown. Fore wing pale yellowish suffused with brown; the basal area pale yellowish except at costa; a triangular pale yellowish antemedial patch on costa and points below the cell and on vein 1; a pale yellowish discoidal spot and spot above it on costa; three small yellowish white postmedial spots from costa to vein 5; the postmedial area rather yellower; a subterminal series of small yellowish white spots slightly incurved at vein 5. Hind wing yellowish white; a small brown discoidal mark; a narrow brown terminal band with waved inner edge from costa to vein 4 and a faint waved subterminal line from vein 4 to near tornus.

Hab. Mexico, Tehuacan (*Müller*). *Exp.* 42 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

1628*a*. Hypocrisias lisoma. (Plate LVII. fig. 17.)

Hypocrisias lisoma, Dyar, Pr. U.S. Nat. Mus. xlii. p. 53 (1912).

♂. Head, thorax, and abdomen whitish suffused with brown. Fore wing dirty whitish suffused and irrorated with dull brown, the terminal area rather darker; a very ill-defined narrow pale antemedial band; a slight dark discoidal lunule; postmedial line whitish, slightly excurved to vein 4, then slightly incurved; a minutely waved whitish subterminal line. Hind wing white faintly tinged with brown; a brownish discoidal bar and subterminal shade.

Hab. MEXICO. Mexico City (*Müller*), Guerrero, Hidalgo (*Mann & Skewes*). 1 ♂. *Exp.* 38 millim.

*1628*b*. Hypocrisias bombycina.

Halisidota bombycina, Roths. A. M. N. H. (8) iv. p. 222 (1909); id. Nov. Zool. xvii. pl. 12 f. 22.

♀. Head and thorax very pale rufous; fore legs whitish in front; abdomen pale greyish rufous slightly tinged with crimson at base of dorsum. Fore wing very pale rufous; traces of a pale postmedial shade incurved below vein 4 and of a pale subterminal shade excurved at middle. Hind wing semihyaline whitish faintly tinged with rufous.

Hab. PERU. Carabaya, Limbani (*Ockenden*), type † ♀ in Coll. Rothschild. *Exp.* 46 millim.

1633*a*. Preparctia hannyngtoni.

Preparctia hannyngtoni, Hmpsn. J. Bomb. Nat. Hist. Soc. xx. p. 119, pl. F. f. 34 (1910); Seitz, Gr.-Schm. Ind.-Austr. pl. 19 *a*.

♀. Head black; tegulæ yellow; thorax black with white streaks at sides and small crimson spots behind the tegulæ; coxæ crimson, the femora and base of hind tibiæ above with crimson streaks; abdomen crimson with dorsal series of black bars, the ventral surface black with series of slight crimson bars. Fore wing black; a subbasal creamy white striga from costa and antemedial bar, both connected with a streak on median nervure from base to origin of vein 2, dilated and enclosing a slight black streak below the antemedial bar, and met at origin of vein 2 by a downcurved streak from base in submedian interspace; a creamy white striga from middle of costa; a curved band from costa beyond middle to lower angle of cell where it is produced outwards to a point; the band giving off an oblique bar from its outer edge below costa; postmedial line creamy white, excurved from costa to vein 4, then oblique and slightly sinuous; a narrow creamy white subterminal band, excurved from costa to vein 5, slightly incurved at vein 3, and at submedian fold forming a wedge-shaped patch connected with the postmedial line; the cilia and inner margin narrowly creamy white. Hind wing crimson; an oblique black band from costa

before middle to vein 1; a large discoidal lunule and spot above it on costa; postmedial line black, obliquely curved from below costa, where it arises, to vein 1 where it terminates in a quadrate patch connected with the medial band, with which it is also connected by a wedge-shaped patch at vein 2; subterminal band black, curved, from costa to submedian fold, dilated at discal fold and vein 2; a triangular patch above tornus; a fine black terminal line from apex to vein 2; cilia yellow; the underside with the costal area yellow.

Hab. Kumaon. Niti Pass, 10,000′ (*Hannyngton*), 1 ♀ type. *Exp.* 58 millim.

*1633 *b.* Preparctia romanovi.

Arctia romanovi, Gr.-Grschm. Hor. Soc. Ent. Ross. xxv. p. 462 (1891); Stand. Cat. Lep. pal. p. 370; Kirby, Cat. Het. p. 912; Seitz, Gr.-Schm. pal. ii. p. 97, pl. 17 *h*.

♀. Head black; tegulæ pale yellow with some scarlet at base; patagia yellow on outer side, black above; thorax black with two yellow streaks on metathorax; pectus and legs black, the fore coxæ and femora scarlet in front; abdomen scarlet with dorsal series of small black spots, the ventral surface black. Fore wing black-brown, the costal area and cell pale yellow to the postmedial band with a spot of the ground-colour below base of costa; an oblique wedge-shaped antemedial patch in and above cell with two arms extending almost to costa and a large spot in, beyond, and above end of cell with small spot above it below costa; a pale yellow fascia on base of inner margin, then curved upwards to cell and enclosing a semicircular patch of the ground-colour below the cell; a postmedial yellow band excurved from costa to vein 4, then obliquely incurved with an oblique dark band before it from cell to inner margin, its upper extremity bent outwards, its lower bent inwards; a subterminal yellow band arising from costa at the postmedial line, oblique to near termen at vein 5, then angled inwards to the postmedial band, then excurved to near termen at submedian fold in which it emits a wedge-shaped streak to the postmedial band; cilia pale yellow. Hind wing orange-yellow with two small black spots below middle of cell and vein 1; an elliptical discoidal spot; a minute postmedial spot below costa and large irregular subterminal spots at discal fold and on veins 2 and 1; black striæ on termen below apex and at middle.

Hab. Tibet, Kuku-Nor, in Coll. Püngeler, Amdo, Sinin Schán Mts. *Exp.* 54 millim.

*1633 *c.* Preparctia allardi.

Chelonia allardi, Oberth. Ét. Lép. Comp. v. i. pp. 123, 323, pl. 66. f. 637 (1911).

♀. Head brown; tegulæ yellowish white, scarlet below; thorax dark brown with yellowish white subdorsal streak and streaks on outer edge of patagia; abdomen scarlet with dorsal series of spots, lateral stripes and the extremity dark brown. Fore wing yellowish

white with subbasal black spot on costa, wedge-shaped antemedial patch below the cell, quadrate patch at middle of costa, its lower extremity produced to a point and with small whitish spot on it at costa, a rather bilobate patch at end of cell and oblique band from lower angle of cell to just above inner margin, its extremities rather produced on inner and outer sides, a triangular postmedial patch from costa to below 5 and wedge-shaped patches below vein 3 and above 1, a triangular patch at apex and wedge-shaped patch at middle of termen. Hind wing orange-yellow slightly tinged with crimson at base; a small black spot in middle of cell and two below the middle, a discoidal lunule, a subterminal spot on costa conjoined to a larger spot below it and spots below vein 3 and above 1. Underside of fore wing orange-yellow, the black markings of both wings rather reduced.

Hab. TIBET, E. frontier. *Exp.* 68 millim. This species is unknown to me.

Genus **GRAPHELYSIA.**

Type.

Graphelysia, Hmpsn. A. M. N. H. (8) viii. p. 408 (1911) ..... *strigillata.*

Proboscis rather slight; palpi porrect extending as far as the large pointed conical frontal prominence; eyes large, round, smooth; antennæ of male bipectinate with moderate branches to apex; thorax clothed with long hair only; tibiæ moderately fringed with hair, the hind tibiæ with terminal pair of spurs only; abdomen with some rough hair at base of dorsum. Fore wing rather narrow, the apex rounded, the termen obliquely curved; vein 3 from well before angle of cell; 5 from above angle; 6 from below upper angle; 7, 8, 9, 10 stalked, 10 from far beyond 7; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 from above angle; 6, 7 shortly stalked; 8 from near middle of cell.

In key differs from *Mænas* in the frons having a large pointed conical prominence.

*1633 *d.* Graphelysia strigillata.

Elysius strigillata, Roths. Nov. Zool. xvii. p. 187, pl. 14. f. 13 (1910).

♂. Head, thorax, and abdomen black-brown with a slight bluish gloss, the tegulæ, metathorax, and extremity of abdomen orange; coxæ orange. Fore wing black-brown with very numerous white

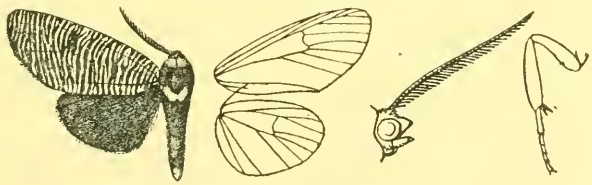

Fig. 87.—*Graphelysia strigillata*, ♂. ½.

striated lines forking in places; an obscure blackish discoidal spot. Hind wing black-brown; the underside with whitish striated lines on terminal area.

Hab. PERU, Carabaya, R. Huacamayo, La Union (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

1635 *a*. Hyphoraia subnebulosa.

Siberia, Tundras at mouth of Yenesei (*Miss Haviland*). 1 ♂.

Fore wing with the markings more extensive than in the type ♀ from Alaska, those on the medial costal area conjoined; abdomen red-brown, the anal tuft and ventral surface orange-red.

1635. Hyphoraia lapponica, insert:—

form *diplosema*, Stichel, Berl. Ent. Zeit. lvi. p. 98, pl. iii. ff. 18 ♂, 20 ♀ (1911).

Fore wing with the postmedial band well developed on inner half.

form *erythema*, Stichel, Berl. Ent. Zeit. lvi. p. 99, pl. iii. f. 19 (1911); Alph. Rom. Mém. ix. p. 198, pl. xiv. f. 8.

Fore wing with the medial spot on costa reduced to a point.

subsp. *lemniscata*, Stichel, Berl. Ent. Zeit lvi. p. 99 (1911).

Siberia, Vilyisk.

*1635 *b*. Hyphoraia seitzi.

Arctia seitzi, Bang-Haas, Iris, xxiv. p. 50, pl. iii. f. 17 (1910); Seitz, Gr.-Schm. pal. ii. p. 95, pl. 56 *g*.

♀. Head and thorax red-brown; abdomen scarlet with dorsal series of black bars. Fore wing dark red-brown with ochreous white patch at base produced to short streaks on outer side; a maculate antemedial band, interrupted in the cell, a small spot beyond it above inner margin; a small spot in middle of cell followed by two elongate spots with a spot above them on costa; a postmedial series of three conjoined spots between the costa and vein 6, and a series of four spots between vein 4 and inner margin towards which they are more elongate; a subterminal series of spots, oblique to vein 6 near termen, the spots below vein 4 larger. Hind wing scarlet; brown streaks on median nervure, vein 1, and inner margin; a black discoidal lunule and small spot below end of cell; subterminal black spots below apex, at middle, and above tornus.

Hab. W. Turkestan, Issyk-kul. *Exp.* 54 millim. This species is unknown to me.

1637. Hyphoraia aulica, insert:—

var. *testudinarioides*, Sovinsk. Rev. Russ. Ent. v. p. 109 (1905).

Paler; fore wing with the yellow spots larger, confluent, and forming a fascia in submedian interspace; hind wing with the black markings smaller.—Caucasus.

ab. *hamata*, Spüler, Schmett. Eur, ii. p. 136 (1906).

Fore wing with the white markings reduced to slight traces; hind wing with the yellow reduced to a hook.

ab. *radiata*, Spüler, Schmett. Eur. ii. p. 136 (1906).

Fore wing with yellow fascia above inner margin.

ab. *immaculata*, Gillm. Soc. Ent. xx. p. 131 (1905).
bicolor, Spüler, Schmett. Eur. ii. p. 136 (1906).
Fore wing dark brown; hind wing black with hardly a trace of pale markings except the yellow cilia.
ab. *extensa*, Schultz, Soc. Ent. xxi. p. 43 (1906).
Fore wing with few of the spots confluent.
ab. *infernalis*, Schultz, Nyt Mag. Nat. Krist. xliii. p. 121 (1905).
Hind wing suffused with black.
ab. *defasciata*, Schultz, Soc. Ent. xxi. p. 43 (1906).
Hind wing with the band reduced.

*1640 *a*. Laora vivida.

Antarctia vivida, Roths. Nov. Zool. xvii. p. 178, pl. 14. ff. 30, 31 (1910).

♂. Head and thorax fulvous, the palpi and antennæ dark brown; legs dark brown, the femora orange above and fringed with fulvous hair; abdomen orange fulvous with some blackish hair on dorsum of medial segments and obscure lateral black striæ, the ventral surface with brown mixed. Fore wing fulvous, the veins whitish; an indistinct dark discoidal spot. Hind wing with the basal and inner areas fulvous yellow, the terminal area fulvous brown with slight pale streaks on the veins; an indistinct brown discoidal spot.
♀. Abdomen banded with blackish, the anal tuft whitish; hind wing with less yellow on basal and inner areas.
Hab. Venezuela, Caracas, type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 42, ♀ 58 millim.

*1640 *b*. Laora occendeni.

Antarctia ockendeni, Roths. Nov. Zool. xvii. p. 178, pl. 14. f. 17 (1910).

♀. Head and thorax reddish brown mixed with fulvous yellow; abdomen brown banded with fulvous yellow, the anal tuft ochreous white; pectus, legs, and ventral surface of abdomen dark grey-brown. Fore wing dark reddish brown mixed with fulvous yellow; a blackish discoidal spot and very indistinct oblique band from lower angle of cell to inner margin; a very indistinct dark post-medial band, excurved below costa, then oblique. Hind wing dark brown mixed with fulvous yellow, especially on marginal areas, the veins darker; an obscure discoidal spot and traces of an oblique band from lower angle of cell to inner margin; an indistinct diffused dark subterminal band.
Hab. Peru, Carabaya, S. Domingo (*Ockenden*), type † ♀ in Coll. Rothschild. *Exp.* 78 millim.

*1641 *a*. Ocnogyna bellieri.

Arctia bellieri, Led. Verh. zool.-bot. Ges. Wien, v. p. 203 (1855); Seitz, Gr.-Schm. pal. ii. p. 78, pl. 16 *a*; Kirby, Cat. Het. p. 264; Staud. Cat. Lep. pal. p. 370.

♀. Head and thorax very pale red-brown; palpi, frons, a patch on vertex of head, and antennæ except at base black; tegulæ,

patagia, and thorax with black patches; pectus black; fore coxæ ochreous, crimson behind, femora crimson above except at extremity, tibiæ and tarsi with ochreous streaks and rings; abdomen grey with black dorsal stripe on terminal segments, lateral tufts of crimson hair, the ventral surface black with ochreous and crimson edges to 1st two segments and ventral ochreous streak on 2nd. Fore wing very pale ochreous brown; an antemedial black band from costa to submedian fold and spot above inner margin; a medial series of three irregular spots and a subterminal series of four spots. Hind wing pale crimson deeper towards base, a black patch on middle of costa and three spots near termen.

♂. Abdomen dorsally suffused with black; fore wing with subbasal black spot below costa, three antemedial spots below the cell, a fascia in end of cell, four spots between lower angle of cell and inner margin, a triangular postmedial patch from below costa to vein 4 and band between vein 3 and submedian fold, and subterminal series of triangular spots conjoined except at middle and above tornus; hind wing with subterminal black band from costa to vein 2 and spot above tornus.

Hab. Asia Minor, Pontus, in Coll. Püngeler. *Exp.*, ♂ 26, ♀ 22 millim.

1642. Ocnogyna latreilli, insert:—

ab. *chinensis*, Gr.-Grschm. Ann. Mus. St. Pet. iv. p. 462 (1900).

Palpi, head, and tegulæ orange; fore wing with the two subterminal spots confluent; the discoidal spot larger; the basal area black.

China, Chingan Mts., near Tung-tsa-in-tsau.

ab. *aurantiaca*, Spüler, Schmett. Eur. ii. p. 138 (1906).

Hind wing orange.

*1644 *a*. Ocnogyna oberthueri.

Phragmatobia oberthueri, Roths. Nov. Zool. xvii. p. 114, pl. 14. f. 33 (1910).

♂. Head and thorax fuscous brown mixed with some whitish hairs; coxæ and tarsi yellow; abdomen black with the hair at sides and on ventral surface yellow. Fore wing yellow, the basal half thickly irrorated with brown, the veins brown; an oblique rather diffused brown antemedial band; a yellow patch in end of cell before the black discoidal lunule; a brown postmedial band, bent outwards below costa and strongly incurved below vein 4; a slightly waved brown subterminal band, incurved below vein 4; the termen and cilia suffused with brown. Hind wing pale yellow, the base and inner area tinged with brown; a broad brown terminal band; cilia yellow; the underside with some blackish irroration below costa.

Hab. Tibet. Kuku-Nor. type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

1645. Ocnogyna corsica, insert :—

ab. *rosacea*, Spüler, Schmett. Eur. ii. p. 133 (1906); Seitz, Gr.-Schm. pal. ii. p. 76, pl. 14 *a*.

♂. Hind wing bright purple-pink.

♀. Wings pale with fewer spots than the typical form.

1647. Ocnogyna pierreti, insert :—

Bombyx adæna, Fabr. Mant. Ins. ii. p. 123 (1787),

which has precedence ;
and insert No. 1648. *Ocnogyna hugueninii*.

1649. Ocnogyna bœtica, insert :—

ab. *obscurior*, Spüler, Schmett. Eur. ii. p. 133 (1906).
Wings with the pale markings reduced.

ab. *meridionalis*, Seitz, Gr.-Schm. pal. ii. p. 76, pl. 14 *b* (1910).
Wings with the white markings more extensive.

ab. *prieti*, Ribbe, Iris, xxiii. p. 348 (1912).
Wings with the markings almost obsolete.

ab. *albescens*, Oberth. Ét. Lép. Comp. xiii. p. 8, pl. 1535, f. 3745 (1917).
Wings with the white markings much more extensive.—Algeria.

ab. *ramburi*, Oberth. Ét. Lép. Comp. xiii. p. 8; pl. 1535, f. 3746 (1917).
Fore wing with the white markings reduced to a fascia in basal half of submedian interspace and small antemedial spot below costa ; hind wing with some whitish at base.—Spain.

Egg. Powell, Ent. Rec. xvii. pp. 237, 262, pl. ix. (1905).
Pale yellow.

Larva. Blackish : head dark brown with transverse white line above the mouth and whitish mark on lobes above ; body with the dorsal stripe slight, white, sometimes on thoracic somites only ; tubercles whitish almost entirely covered by the swollen bases of the numerous black hairs, the skin with golden brown hairs. Food-plant, *Spartium junceum*.

*1649 *a*. Ocnogyna herrichi.

Trichosoma loewii, Herr.-Schäff. Neue Schmett. f. 164 (nec Zell.).
Ocnogyna herrichi, Staud. Hor. Soc. Ent. Ross. xiv. p. 337 (1878) ; Staud. Cat. Lep. pal. p. 368 ; Seitz, Gr.-Schm. pal. ii. p. 77, pl. 16 *a*

♂. Head and thorax clothed with black and ochreous white hair ; abdomen black with some long ochreous white hair. Fore wing ochreous white tinged with brown towards costa ; a black patch at base of costa ; a fascia on inner margin expanding into spots before and beyond middle ; a small antemedial spot on subcostal nervure ; an irregular oblique band from costa beyond middle to submedian fold ; a triangular patch on vein 2 ; an oblique bar from costa to vein 5 on which it is bent inwards and separated

from the black terminal band which is angled outwards at vein 5 and to termen at submedian fold; cilia ochreous. Hind wing yellowish white; the inner area blackish; the terminal area black with irregular inner edge, the white running outwards between veins 3, 4; a small discoidal spot sometimes present; cilia ochreous; the underside with black spot on middle of costa.

Hab. Asia Minor, Taurus in Coll. Püngeler. *Exp.* 30 millim.

1650. **Ocnogyna clathrata**, insert no. 1641. *O. loewi*,

which has precedence, and delete

Trichosoma loewii, Herr.-Schäff. and *Ocnogyna herricki*.

1653 *a*. **Ocnogyna rothschildi.** (Plate LVII. fig. 18.)

Ocnogyna rothschildi, Bang-Haas, Iris, xxvi. p. 108, pl. vi. f. 3 (1912).

♂. Head and thorax grey; palpi, frons, and a patch between antennæ and the antennæ black; tegulæ, patagia, and dorsum of thorax with black stripes; pectus and legs black-brown mixed with grey; abdomen black-brown, the hair at sides grey. Fore wing grey tinged with brown; a black fascia just below costa to end of cell; a black fascia on median nervure to origin of vein 2 followed by a streak to end of cell; a black fascia on vein 1 to middle; an irregular postmedial black spot below costa connected with the subcostal fascia, an elongate spot in discal fold, and elongate spots on veins 2 and 1 connected with the median and submedian fasciæ; small terminal spots at apex and vein 7 and a somewhat lunulate spot at veins 4, 3; cilia brown at base, whitish at tips. Hind wing grey tinged with brown, the veins darker; a subapical fuscous patch and a subterminal patch at vein 2; cilia brown at base, whitish at tips; the underside with the costal area blackish to beyond middle.

♀. Abdomen with subdorsal lunulate black patches; wings with the spots smaller.

Hab. Russia, Samara, Saratow, 1 ♂, 1 ♀. *Exp.* ♂ 30 millim.

1653. **Ocnogyna parasita**, insert:—

Ocnogyna intermedia, Staud. Hor. Soc. Ent. Ross. xiv. p. 335 (1878); id. Cat. Lep. pal. p. 367.

Fore wing with the spots smaller.

Page 233. Genus **PHRAGMATOBIA**, insert:—

	Type.
Hyperborea, Gr.-Grsehm. Ann. Mus. Petersb. iv. p. 464 (1900) .	*czecanowsci.*
Oroncus, Seitz, Gr.-Schm. pal. ii. p. 82 (1910)	*urania.*
Micrarctia, Seitz, Gr.-Schm. pal. ii. p. 83 (1910)	*trigona.*

1656. **Phragmatobia zoraida**, insert:—

ab. *henricus*, Ribbe, Iris, xxiii. p. 349 (1912).

Fore wing with the bands entire.

ab. *olaria*, Ribbe, Iris, xxiii. p. 349 ((1912).
Fore wing with the three black costal patches united.
ab. *blanca*, Ribbe, Iris, xxiii. p. 349 (1912).
Hind wing without markings.

*1656 *a*. Phragmatobia faroulti.

Phragmatobia faroulti, Roths. A. M. N. H. (8) viii. p. 233 (1911); id. Nov. Zool. xix. pl. 5. f. 28.

♂. Head, thorax, and abdomen dark brown with some greyish hair especially on tegulæ and tips of patagia: hind legs ochreous whitish; tarsi scarlet. Fore wing grey-brown; an oblique subbasal dark brown maculate band from costa to vein 1; an antemedial dark brown maculate band, oblique to median nervure and interrupted in submedian interspace; medial spots on costa, median nervure, and inner area: a medial bar with spot just beyond it on costa; an oblique postmedial series of slight spots on veins 6 to 1; a diffused subterminal band excurved below vein 6 and interrupted at submedial fold, more or less confluent with a diffused terminal band. Hind wing dull ochreous; an oblique antemedial dark brown band from costa to just below the cell; a maculate band from costa to lower angle of cell; the terminal area dark brown, its inner edge slightly excurved at middle.

Hab. Algeria, Bou Saada, type † ♂ in Coll. Rothschild. *Exp.* 34 millim.

1656 *b*. Phragmatobia breveti, trans. from *Mænas* no. 1692.

Oberth. Ét. Lép. Comp. v. i. p. 44, pl. lxxviii. f. 709.

*1656 *c*. Phragmatobia pouelli.

Ocnogyna powelli, Oberth. Bull. Soc. Ent. Fr. 1910. p. 333; id. Ét. Lép. Comp. v. i. p. 45, pl. lxxviii. ff. 710, 711; Seitz, Gr.-Schm. pal. p. 446, pl. 56 *k*.

♂. Head and thorax pale red-brown mixed with blackish, the patagia with blackish patches; abdomen pale red-brown with dorsal series of diffused black spots. Fore wing pinkish red; a subbasal black spot on costa; an antemedial series of small black spots bent inwards to costa, and spots at middle of costa and inner margin; a discoidal lunule with small spots before it on median nervure and vein 2; a curved maculate postmedial line; a series of rather elongate quadrate black subterminal spots in the interspaces. Hind wing pink; black spots at middle and end of cell and a terminal black band except towards tornus. Underside of fore wing with the antemedial spots ending at median nervure, the postmedial line reduced to well separated spots.

♀. Wings aborted and very narrow, the costa of hind wing excised before apex; head, thorax, and abdomen redder.

Hab. Algeria, Géryville. *Exp.*, ♂ 36, ♀ 28 millim. This species is unknown to me.

*1656 *d.* **Phragmatobia occidentalis.** (Plate LVII. fig. 19.)

Mænas brevetti, occidentalis, Roths. Nov. Zool. xvii. p. 119 (1910).

♂. Head red-brown, the palpi fulvous at extremities, the antennæ fulvous with the branches black; thorax fuscous brown with some grey mixed, the tegulæ fulvous at base; pectus and legs fulvous; abdomen fulvous with slight brown dorsal streak. Fore wing red-brown; a small subbasal black spot below costa; an antemedial black bar from costa and spots further from base in upper part of cell and on median nervure: medial spots on costa and in upper part of cell, a bar from above median nervure to below vein 2 and spots above and below vein 1; spots in and above upper angle of cell, a bar just beyond lower angle, a point at vein 2 and conjoined spots above and below vein 1: a subterminal series of spots, interrupted below vein 2 and with the spots above and below vein 5 rather elongate. Hind wing dull crimson; a small black discoidal lunule; a subterminal maculate band with small spot between veins 4, 3 and ending with a separate spot on vein 1; cilia fulvous; the underside with antemedial black bar from costa and pair of spots above end of cell.

Hab. Morocco, Mazagan (*Riggenback*), type † ♂ in Coll. Rothschild. *Exp.* 34 millim.

1657. **Phragmatobia maculosa**, insert:—

var. *stertzi*, Schultz. Iris, xv. p. 329 (1902).

Fore wing of male pale yellowish with the dark markings large: hind wing rose; female fore wing pale brown; hind wing red.—Graian Alps.

var. *slivnoensis*, Rebel, Ann. Hofmus. Wien, xviii. p. 275, pl. iii. f. 9 (1903): Seitz. Gr.-Schm. pal. ii. p. 78, pl. 16 *a*.

Larger; fore wing with the black spots more developed and in part confluent on outer area.

Balkans.

var. *sojota*, Tschr. Rev. Russ. Ent. iv. p. 79 (1904).

Differs from var. *reticulata* in the fore wing being dark chestnut brown.—Sajan.

ab. *flava*, Spüler, Schmett. Eur. ii. p. 138 (1906).

Hind wing yellow.

ab. *latina*, Turati, Nat. Sicil. xxi. p. 117, pl. iv. ff. 14. 15, 18 (1909); Seitz, Gr.-Schm. pal. ii. p. 78, pl. 14 *g*; Oberth. Ét. Lép. Comp. v. p. 335, pl. lxxxi. f. 760.

ab. *pallida*, Aign. ? ined. Seitz, Gr.-Schm. pal. ii. p. 78 (1910).

Hind wing ochreous yellow.

ab. *confluens*, Oberth. Ét. Lép. Comp. v. p. 335, pl. lxxxi. f. 761 (1911).

ab. *paucimaculata*, Oberth. Ét. Lép. Comp. v. p. 335, pl. lxxxi. f. 762 (1911).

ab. *rosina*, Oberth. Ét. Lép. Comp. v. p. 335, pl. lxxxi. f. 763 (1911).

*1659 *a*. Phragmatobia serarum. (Plate LVII. fig. 20.)

Arctia serarum, Gr.-Grschm. Ann. Mus. St. Pet. iv. p. 463 (1900).
Arctia serum, Gr.-Grschm. Ann. Mus. St. Pet. vii. p. 204 (1902).
Arctia schottlænderi, Strand. Intern. Ent. Zeit. vi. p. 2 (1912).

♂. Head orange-scarlet, the antennæ brown; thorax dark brown, the tips of tegulæ scarlet, the upper edge of patagia with slight scarlet streaks; abdomen crimson-scarlet, the base dark brown followed by dorsal black bars and the extremity black. Fore wing black; an irregular subbasal orange-scarlet band, emitting streaks to the base on costa and median nervure, then excurved, not reaching the inner margin, conjoined at submedian fold to a medial orange-scarlet band excurved to median nervure and not reaching inner margin, its inner edge incurved below costa, slightly conjoined at submedian fold to a postmedial orange-scarlet band, oblique to vein 4, then incurved and not reaching inner margin; a subterminal orange-scarlet band, angled outwards below vein 6, inwards at vein 5 to the postmedial band, then excurved, incurved at submedian fold to the postmedial band and not reaching inner margin; cilia orange-scarlet. Hind wing crimson-scarlet; an oblique postmedial black bar from costa to vein 6 and slight subterminal spots below vein 3 and above 1.

Hab. E. Turkestan, Thian-Shán in Coll. Püngeler. *Exp.* 34 millim.

1659. Phragmatobia cindermanni, insert:—

var. *selmonsi*, Böttcher, Ent. Zeit. Guben. xix. p. 62, ff. 18–21 (1905).
Fore wing with the markings ochreous yellow.
ab. *transversata*, Böttcher, Ent. Zeit. Guben. xix. p. 62 (1905).
Fore wing with the medial band continued to the inner margin.

1660. Phragmatobia glaphyra, insert:—

ab. *puengeleri*, Böttcher, Ent. Zeit. Guben. xix. p. 63, ff. 9–11 (1905).
Hind wing uniform black-brown.
ab. *amabilis*, Böttcher, Ent. Zeit. Guben. xix. p. 63, f. 6 (1905).
Fore wing with broad white antemedial band.
ab. *tristis*, Seitz, Gr.-Schm. pal. ii. p. 83. pl. 16 *k* (1910).
Fore wing with the white postmedial line absent.
ab. *rosearia*, Seitz, Gr.-Schm. pal. ii. p. 83, pl. 16 *i* (1910).
Fore wing with the markings orange-yellow; hind wing crimson-scarlet.
ab. *fumosa*, Niepelt, Intern. Ent. Zeit. v. p. 274 (1911).
Fore wing dark brown; hind wing red irrorated with brown.—Thian-Schán.
ab. *flava*, Bang-Haas, ined.
Hind wing yellow.

*1661 *a*. Phragmatobia sieversi.

Arctia sieversi, Gr.-Grschm. Hor. Soc. Ent. Ross. xxv. p. 462 (1891); Seitz, Gr.-Schm. pal. ii. p. 83, pal. 16 *i*; Staud. Cat. Lep. pal. p. 370; Kirby, Cat. Het. p. 912.

♂. Head and tegulæ yellow with black streaks on sides of palpi and tegulæ; antennæ brown, the shaft white above; thorax pale yellow with black-brown stripes on vertex and upper edge of patagia; abdomen orange-yellow with dorsal black stripe and short lateral stripes at base, the ventral surface pale yellow with sublateral series of black bars. Fore wing dark red-brown; the costal edge pale yellow; a yellow fascia in cell with rather irregular upper edge, expanding at extremity and connected with a narrow fascia with its lower edge hooked just beyond cell and its extremity bent upwards to costa before apex; a rather irregular yellow fascia from base of inner margin bent upwards to submedian fold below middle of cell, then running along the fold to before termen; a narrow fascia along inner margin, expanding somewhat and with its upper edge indented at middle; a small elongate spot below end of cell; a V-shaped subterminal mark with its arms on veins 6 and 2 before termen and its apex below vein 4; cilia pale yellow. Hind wing scarlet, the veins with slight black streaks; a black fascia along median nervure and on base of vein 2; a black discoidal lunule; a black fascia on vein 1 ending in a spot on termen; a patch on costa just before apex and large terminal patches between veins 6 and 4 and 3 and submedian fold; black striæ on termen below apex and between veins 4, 3; cilia yellow, the underside yellow tinged with scarlet, a black spot on middle of costal nervure.

Hab. Tibet, Kuku-Nor in Coll. Püngeler. *Exp.* 42 millim.

1661 *b*. **Phragmatobia pretiosa**, trans. from *Ocnogyna*, no. 1646.

subsp. *alborittata*, Roths. Nov. Zool. xvii. p. 83, pl. 14. f. 7 (1910).

♂. Fore wing with the white bands and fascia broad and well developed, separating the black patches; hind wing with two small black spots on basal area and without discoidal spot, the terminal band interrupted at vein 3.

Hab. Tibet, Kuku-Nor, type + ♂ in Coll. Rothschild.

*1661 *c*. Phragmatobia vagneri. (Plate LVII. fig. 21.)

Phragmatobia vagneri, Püng. ined.

♀. Head yellowish white mixed with some dark brown, the frons dark brown; thorax dark brown, the tegulæ and patagia edged with yellowish white, the metathorax yellowish white behind; legs mostly yellow; abdomen yellow with diffused dark brown dorsal fascia expanding into segmental bands, the ventral surface with sublateral spots except towards extremity and bands on two medial segments. Fore wing dark chocolate-brown; obliquely placed

yellowish white subbasal streaks below costa and in and below the cell; a broad medial band from costa to median nervure and some suffusion just below the cell, the inner edge of the band oblique and sinuous, the outer edge incurved in the cell; a postmedial band with waved edges, arising below costa, oblique to vein 4, then inwardly oblique and ending above vein 1 towards which it narrows; subterminal line obsolescent, obsolete towards costa and inner margin, angled inwards to the postmedial band below veins 7, 4, 2, and outwards at veins 6 and 2; cilia white at tips. Hind wing orange-yellow, the veins irrorated with black; a blackish streak on vein 1 to beyond middle and subterminal spots on costa, at discal fold, and on veins 2 and 1. Underside orange-yellow; fore wing with small elongate brown spot in middle of cell, discoidal lunule with spot above it on costa, subterminal spots below costa and vein 6 and on vein 2, and terminal patches at apex and middle and a spot below vein 2; hind wing with some brown scales below costa at middle and towards termen and before termen on vein 2 and a slight streak on base of vein 1.

Hab. C. Asia, type † ♀ in Coll. Püngeler. *Exp.* 40 millim.

1667. Phragmatobia casta, insert:—

ab. *mediodivisa*, Spüler, Schmett. Eur. ii. p. 138 (1906); Seitz, Gr.-Schm. pal. ii. p. 80, pl. 16 *d*.

Fore wing with the antemedial band angled outwards to the postmedial band in submedian interspace.

ab. *deserta*, Bartel, ? ined.; Seitz, Gr.-Schm. pal. ii. p. 80.

Fore wing with the dark areas more extensive, the subterminal band not produced to a tooth; hind wing smoky brown with a dull white medial band.

ab. *nigrata*, Schultz, ? ined.; Seitz, Gr.-Schm. pal. ii. p. 80.

Fore wing almost entirely black.

ab. *bivittata*, Spüler, Schmett. Eur. ii. p. 138 (1906).

Hind wing with dark brown medial band.

ab. *lutea*, Schultz, ? ined.; Seitz, Gr.-Schm. pal. ii. p. 80

ab. *flavescens*, Oberth. Ét. Lép. Comp. v. pp. 99, 335, pl. lxxxi. f. 753 (1911).

♀. Hind wing yellow.

ab. *fereimaculata*, Oberth. Ét. Lép. Comp. v. p. 334, pl. lxxxi. f. 748 (1911).

ab. *rosea*, Oberth. Ét. Lép. Comp. v. p. 334, pl. lxxxi. f. 749 (1911).

ab. *irregularis*, Oberth. Ét. Lép. Comp. v. p. 334, pl. lxxxi. f. 750 (1911).

ab. *obscura*, Oberth. Ét. Lép. Comp. v. p. 334, pl. lxxxi. f. 751 (1911).

ab. *obscurior*, Oberth. Ét. Lép. Comp. v. p. 335, pl. lxxxi. f. 752 (1911).

ab. *amœna*, Oberth. Ét. Lép. Comp. v. p. 335, pl. lxxxi. f. 754 (1911).

ab. *wullschlegeli*, Oberth. Ét. Lép. Comp. v. p. 335, pl. lxxxi. f. 755 (1911).

1668. **Phragmatobia flavia**, insert :—

vars. Oberth. Ét. Lép. Comp. v. 1. pp. 127–9 & vi. p. 317, pl. cvii. ff. 976-980.

ab. *immaculata*, Schmitt. Ent. Zeit. Guben. xxiii. p. 141 (1909).
Hind wing without the dark markings.

ab. *rosea*, Lorez, Soc. Ent. xix. p. 123 (1904).
Hind wing tinged with rose-red.

ab. *obscura*, Lorez, Soc. Ent. xix. p. 123 (1904).
Hind wing brown.

ab. *flavoabdominalis*, Lorez, Soc. Ent. xix. p. 123 (1904).
Abdomen yellow.

ab. *atroabdominalis*, Lorez, Soc. Ent. xix. p. 124 (1904).
Abdomen black.

ab. *stygialis*, Schultz, ? ined. ; Seitz, Gr.-Schm. pal. ii. p. 99 (1910).
Fore wing entirely black.

ab. *brunnea*, Spüler, Schmett. Eur. ii. p. 135 (1906).
Fore wing deep brown.

ab. *nigricans*, Lorez, Soc. Ent. xix. p. 124 (1906).
Fore wing black with traces of white.

ab. *latemarginata*, Schultz, Ent. Zeit. Guben. xix. p. 2 (1905).
Fore wing with the costal fascia broad.

ab. *flavocostata*, Spüler, Schmett. Eur. ii. p. 135 (1906).
Fore wing with the costa yellow.

ab. *angustesignata*, Spüler, Schmett. Eur. ii. p. 135 (1906).
Fore wing with the white markings more extensive and the black reduced.

var. *uralensis*, Heyne, Soc. Ent. xiv. p. 97 (1899).
Fore wing finely marked with white, the costa black ; hind wing darker yellow.—Urals.

var. *sibirica*, Heyne, Soc. Ent. xiv. p. 97 (1899).
Usually paler ; hind wing very pale yellow.

ab. *nigricans*, Romberg, Ent. Zeit. Guben. xxvii. p. 218 (1913).

ab. *confluens*, *nov.*, Romberg, Ent. Zeit. Guben. xxvii. p. 218 (1913).

1668 *a*. **Phragmatobia leopardina**, trans. from *Diacrisia*, no. 1753.

*1669 *a*. **Phragmatobia thursbyi.**

Turruptiana thursbyi, Roths. Nov. Zool. xvii. p. 176 (1910), & xviii. pl. 6. ff. 14, 24.

♂. Head dark brown ; tegulæ dull crimson-red, the patagia dark brown edged with dull crimson-red, the thorax dull crimson-red with dark dorsal streak ; pectus crimson ; legs crimson and brown ; abdomen crimson with dark brown dorsal fascia, the ventral surface dark brown with slight ochreous segmental lines. Fore wing dark brown, some greyish ochreous on basal area and the veins, some crimson at base of inner margin ; an obscure diffused greyish ochreous strongly excurved antemedial line ; postmedial line defined

on each side by greyish ochreous bands, strong, diffused, and oblique from costa to vein 3, then narrower and incurved; traces of a curved diffused subterminal greyish line; cilia greyish ochreous at tips. Hind wing crimson; small blackish spots at angles of cell; a black-brown terminal band from apex to vein 1, expanding somewhat towards costa; cilia crimson; the underside with blackish spot on costa before middle, a black bar on upper discocellular, the costal area black-brown from above end of cell.

ab. 1. Thorax with less crimson on dorsum; fore wing with the bands defining the postmedial line much browner.

Hab. Patagonia, Chubut, Val del Lago Blanco (*Thursby*), type † ♂ in Coll. Rothschild. *Exp.* 32 millim.

1670. Phragmatobia beani.

Larva. Gibson, Can. Ent. xli. p. 400 (1909).

Dull green thickly mottled with brown, the sublateral area almost wholly orange, the ventral surface greenish; an indistinct dull orange dorsal stripe; tubercles black, the bristles faintly barbed; tubercles i. and ii. with the bristles black, iii. black with some white from lower half of iv. and from v., vi. bright rust-red from vii. and viii. dark rust-red; spiracles black; head black. Food-plants: *Antennaria rosea* and *Plantago*. 5.

Pupa bluish black with a faint purplish bloom; cremaster round, dark reddish brown, terminating in reddish bristles.

Cocoon. A thin covering of white silk.

*1671 *a*. Phragmatobia czecanousci.

Hyperborea czekanowskii, Gr.-Grschm. Ann. Mus. Petersb. iv. p. 464 (1900); Seitz, Gr.-Schm. pal. ii. p. 103, f. 18 *h*.

Antennæ of male with serrations ending in a bristle.

♂. Head, thorax, and abdomen dark brown and white mixed, the anal tuft pale yellow. Fore wing thinly sealed, dull dark brown; the veins streaked with white; a white fascia below costa to

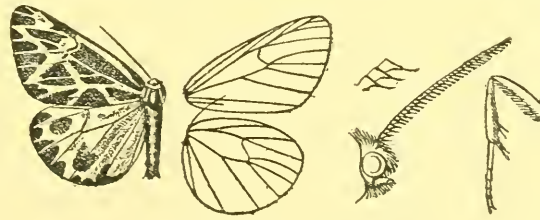

Fig. 88.—*Phragmatobia czecanousci*, ♂. ½.

postmedial line and in submedian interspace to subterminal line; the antemedial line represented by an oblique white bar from the

submedian fascia to inner margin ; the postmedial band oblique from costa to subterminal line at vein 4, then strongly angled inwards in submedian fold, and outwards to inner margin, subterminal band oblique below costa, angled outwards to near termen on vein 6, then inwards to the postmedial line at vein 4, outwards to termen at vein 2 and inwards to submedian fascia. Hind wing semihyaline white, the terminal area brown with the veins streaked with white, broken up into spots by the subterminal white band which is angled outwards at vein 5 and to termen at veins 2 and 1.

Hab. E. Siberia, Tunguska R., in Coll. Püngeler. *Exp.* 44 millim.

*1672 *a*. Phragmatobia tancrei.

Arctia tancrei, Staud. Stett. Ent. Zeit. xlviii. p. 81 (1887) ; Seitz, Gr.-Schm. pal. ii. p. 83, pl. 16 *h* ; Staud. Cat. Lep. pal. p. 371.

♂. Head and thorax black-brown ; tegulæ except at tips and outer edge of patagia ochreous ; femora crimson above ; abdomen black, a band on penultimate segment, almost all the terminal segment and short lateral and ventral segmental bands fulvous. Fore wing black-brown ; a broad ochreous yellow fascia on costa from base to beyond middle where it emits an oblique band to vein 3 where it is nearly met by a wedge-shaped mark from termen above tornus, the lower edge of costal fascia irregular and with antemedial, medial, and postmedial black points on costa, an ochreous spot on costa before apex ; cilia ochreous from apex to vein 4 and from vein 4 to tornus. Hind wing orange suffused with crimson except the costal and terminal areas ; a large black discoidal lunule, a subapical black spot and an irregular rather oblique band from above vein 2 to below vein 1. Underside yellow ; fore wing with rather triangular black discoidal spot, three conjoined subterminal spots between veins 7 and 4, and a spot above tornus ; hind wing with the inner area suffused with crimson.

Antennæ of male ciliated ; fore wing with vein 10 from cell.

Hab. W. Turkestan, Issyk Kul, type † ♂ in Coll. Püngeler. *Exp.* 52 millim.

*1672 *b*. Phragmatobia urania.

Phragmatobia urania, Püng. Soc. Ent. xix. p. 121 (1904) ; Seitz, Gr.-Schm. pal. ii. p. 83, pl. 16 *h*.

♂. Head and thorax black ; tegulæ except at tips and outer edge of patagia white ; femora yellow above ; abdomen black with short conjoined lateral bands, slight ventral bands on medial segments, and the anal tuft orange. Fore wing black ; a broad white band below costa from base to beyond middle leaving the costal edge and a patch at base black, its lower edge irregular, some slight obliquely placed white points from its extremity to vein 3 where they meet the subterminal maculate band which is excurved between veins 5 and 3 and ends on termen above tornus. Hind wing orange-yellow,

the veins slightly streaked with black, a discoidal lunule, subterminal band from costa to vein 4 and oblique irregular band from vein 3 to termen above tornus; cilia black from apex to vein 2. Underside yellow; fore wing with black discoidal lunule, subterminal spot between veins 7 and 4 and patch on apical part of termen conjoined to a patch on medial part.

♀. Abdomen with ventral series of orange spots; fore wing with the subterminal white markings reduced.

ab. 1. Abdomen with ventral spot on penultimate segment only; fore wing with slight streak below middle of costa; hind wing with the basal and inner areas largely suffused with black.

Antennæ of male ciliated; fore wing with vein 10 from cell in male, stalked with 7, 8, 9 in female.

Hab. E. Turkestan, Korla; Mongolia, Aksu, in Coll. Püngeler. *Exp.*, ♂ 42, ♀ 46 millim.

1672. Phragmatobia fuliginosa, insert:—

ab. *lurida*, Roths. Nov. Zool. xvii. p. 115 (1910) for *fervida*, Staud. nec Wlk.

ab. *flavida*, Oberth. Bull. Soc. Ent. Fr. 1901, p. 273; id. Et. Lép. Comp. xiii. pl. 1535. f. 3747.

flavescens Schultz, ? ined.; Seitz. Gr.-Schm. pal. ii. p. 79 (1910).

Hind wing yellow.—Pyrenees.

ab. *pulverulenta*, Alph. Rom. Mém. v. p. 84 (1889).

A form with the thorax and abdomen greyish; fore wing pale and semihyaline.

W. Turkestan, Turcomania; E. Turkestan, Thian-Shán Mts., Gobi Desert.

ab. *pallida*, Roths. Nov. Zool. xvii. p. 116, pl. 14. f. 38 (1910).

A pale brownish buff form more or less tinged with pale rose-pink.

Tibet, Kuku-Nor; W. China, Ganssu.

ab. *japonica*, Roths. Nov. Zool. xvii. p. 116 (1910).

Fore wing deep dull greyish chocolate; hind wing dull rose with a broad subterminal black band.

Japan, Yokohama.

ab. *amurensis*, Staud. ined.; Seitz. Gr.-Schm. pal. ii. p. 79 (1910).

ab. *kronmira*, Oberth. Ét. Lép. Comp. xiii. p. 11, pl. 1535. f. 3751 (1917).

Hind wing with the black markings reduced to the two spots on discocellulars and small subterminal spots at discal and submedian folds and above tornus.—Tunis.

1673. Phragmatobia assimilans, ab. *franconia*.

Larva. Gibson, Can. Ent. xliii. p. 125 (1911).

Dull purple, paler round the tubercles which are dull blackish; bristles from tubercles prominently barbed, dull rust-red or mouse-coloured, the bristles from below the spiracles brighter; spiracles cream-coloured ringed with black; head black with brownish patches above ocelli. Food-plants: *Mertensia, Taraxacum, Plantago.* 5.

*1673 *a*. Phragmatobia cœlestina. (Plate LVII. fig. 22.)

Phragmatobia cœlestina, Püng. Soc. Ent. xix. p. 121 (1904).

♀. Head and thorax grey and fuscous mixed; throat and femora above tinged with vinous red; abdomen black with segmental lines, lateral fasciæ and the three terminal segments grey, the anal tuft fulvous, the ventral surface with fulvous segmental lines. Fore wing fuscous suffused and irrorated with grey, the basal area and inner area to beyond middle less suffused; a slight discoidal lunule, an indistinct postmedial line excurved from costa to vein 4, then incurved. Hind wing whitish tinged with flesh-colour, the basal area suffused with black, extending on inner margin to tornus; a discoidal lunule; a terminal band from apex to vein 4 and from vein 3 to 1.

Hab. E. Turkestan, Altyn Tagh Mts., in Coll. Püngeler. *Exp.* 40 millim.

*1675 *a*. Ardices meridionalis. (Plate LVII. fig. 23.)

Diacrisia meridionalis, Roths. Nov. Zool. xvii. p. 134 (1910).

♂. Head and tagulæ white; palpi crimson, black at tips; sides of frons and antennæ black-brown; patagia white with black-brown patches; dorsum of thorax black-brown slightly mixed with white; pectus white with crimson streaks below shoulders and wings; femora white, the tibiæ and tarsi black-brown; abdomen crimson, the base, anal tuft, and ventral surface white, dorsal, lateral, and sublateral series of black spots and ventral series of black-brown patches. Fore wing white; subbasal black-brown streaks on and below costa, a streak above median nervure to end of cell, an elongate antemedial spot below the cell, small spot above vein 1 and streak on inner margin from near base to middle, bars from middle of costa and at end of cell to the streak in cell, a spot below end of cell and conical spot at middle of submedian interspace; a postmedial series of ten elongate spots in the interspaces, oblique below vein 6 and the spot above vein 6 not elongate; a terminal series of eight rather quadrate patches, the patches above and below vein 6 elongate and the patch below vein 6 confluent with the postmedial spot. Hind wing white; a large brown discoidal spot; small subterminal spots above and below vein 7 and a maculate band from vein 6 to tornus; a terminal series of small spots between veins 7 and 2; the underside with two small spots below costa above end of cell.

Hab. S. Australia, Parkside, type † ♂ in Coll. Rothschild. *Exp.* 50 millim. This may be an aberration of *A. glatignyi*.

Genus TINOLIODES.

Type.

Tinoliodes, Hmpsn. Entom. xlviii. p. 110 (1915) ..... *benguetensis*.

Proboscis aborted, small; palpi porrect, extending as far as the frons which is clothed with rough hair; eyes smooth; antennæ of male bipectinate with

rather short branches to apex; thorax clothed with rough hair; mid and hind tibiæ fringed with rather long hair on outer side and without spurs; a tuft of hair from below origin of hind wing; abdomen with lateral tufts of downturned hair. Fore wing with vein 3 from long before angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 stalked; 8 from middle of cell; the underside in male clothed with rough hairy scales.

In key differs from *Mænas* in the mid and hind tibiæ being without spurs.

*1675 *b*. Tinoliodes benguetensis.

Tinoliodes benguetensis, Wileman, Entom. p. 110 (1915).

♂. Head, thorax, and abdomen orange-yellow; palpi black at tips; antennæ with the shaft whitish with black spot at base, the branches brownish; frons, tegulæ, and shoulders with black spots; fore and mid femora and tibiæ streaked with black on inner side; abdomen with dorsal and lateral series of small black spots except on basal segment, the anal segment with three black spots above.

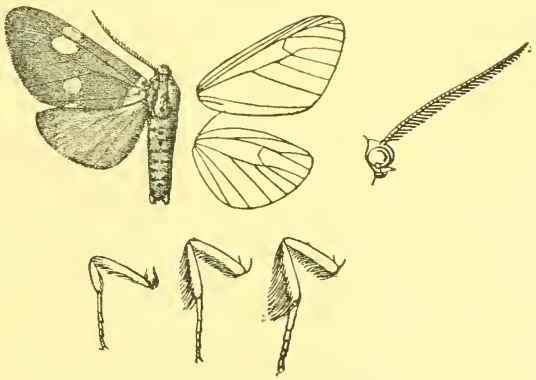

Fig. 89.—*Tinoliodes benguetensis*, ♂. ½.

Fore wing pale red-brown, the base yellow with a black spot at base of cell; a yellow spot just below costa above end of cell, an elliptical white discoidal spot, a round spot below vein 2, and conical yellowish white spot on inner margin. Hind wing pale orange-yellow. Underside of fore wing without the spots below costa and on inner margin.

Hab. PHILIPPINES, Luxon, Benguet Prov. Palali (*Wileman*), type † ♂ in Coll. Wileman. *Exp.* 46 millim.

Page 247. Genus **MÆNAS**, del. *Carbisa* Moore, and insert:—

	Type.
Altimænas, Dyar, Pr. U.S. Nat. Mus. xlv. p. 642 (1913)	*tapina*.

1677. **Mænas arborifera**, insert (syn.):—

Conchylia smithii, Holland, Donaldson Smith's Travels, p. 419, pl. f. 12 (1897).

1677 *a*. Mænas ramosa. (Plate LVII. fig. 24.)

Mænas ramosa, Hmpsn. A. M. N. H. (7) xix. p. 235 (1907).

♀. Head and thorax white; palpi yellow; antennæ black; tegulæ slightly edged with pale brown; patagia and vertex of thorax streaked with pale red-brown; legs streaked with brown; abdomen orange, the anal tuft and ventral surface white, a dorsal series of black spots except at base and extremity, subdorsal black points on three medial segments and a sublateral series. Fore wing white; a red-brown fascia in base of cell, then along subcostal nervure and to costa before apex expanding at angle of cell and at costa; a fascia along median nervure and to termen below vein 6 emitting branches on basal half of veins 2, 3, expanding and partially enclosing a white spot above middle of vein 4; a fascia on vein 1; an oblique fascia from apex to middle of vein 6; a spot on termen at extremity of vein 2. Hind wing white tinged with yellow; the underside with minute discoidal points.

Hab. "Germ. E. Africa," Dar-es-Salaam, 1 ♀ type. *Exp.* 34 millim.

1678. Mænas maculifascia, insert:—

Mænas arescopa, Turner, Tr. R. Soc. S. Austr. xxx. p. 118 (1906).
Mænas maculifascia, roseata, Roths. Nov. Zool. xvii. p. 117 (1910).

A form with the abdomen crimson; fore wing more heavily marked with brown; hind wing with the inner area tinged with crimson.

Buru, Kajeli; Amboina; Timor, Oinainissa, Dili; Queensland, Mackay, Cairns, 1 ♂.

Larva. Piepers, Tijid. v. Ent. xlviii. p. 181, pl. vi. f. 1.

1678 *a*. Mænas punctatostrigata.

Mænas punctatostrigata, Beth.-Baker, Nov. Zool. xi. p. 412, pl. 6. f. 15 (1904).

♂. Head and thorax brownish white with some orange on shoulders and prothorax; palpi, sides of frons, antennæ, and spots on patagia black; legs mostly black, the fore coxæ and mid femora above orange; abdomen orange, the ventral surface brownish white. Fore wing brownish white; subbasal, antemedial, and postmedial black spots on costa; an oblique series of brown spots from apex to inner margin beyond middle where there are two brown spots before and two beyond it, two brown spots curved inwards from its inner side above vein 5 and five slight streaks beyond it from above vein 5 to 3; two or three spots on termen between veins 7 and 4. Hind wing yellowish white.

Hab. Dutch N. Guinea, Iwaka R. (*Wollaston*), 1 ♂, Up. Setekwa R., Snow Mts. (*Meek*), 1 ♂; Br. N. Guinea, Sogeri, 1 ♂, Babooni (*Pratt*), 5 ♂, Dinawa (*Pratt*), 1 ♂, Mt. Kebea, 6000′ (*Pratt*), 1 ♂, type † ♂ in Coll. Bethune-Baker. *Exp.* 40 millim.

*1678 *b*. Mænas avola. (Plate LVII. fig. 25.)

Spilosoma avola, Beth.-Baker, Nov. Zool. xv. p. 190 (1908).

♀. Head and thorax white faintly tinged with brown; palpi blackish; antennæ black except at base; some yellow behind the eyes and on front of pectus; fore tibiæ, the extremities of mid and hind tibiæ, and the tarsi above fuscous; abdomen orange-yellow, the base and ventral surface whitish. Fore wing white with a faint brownish tinge; an erect antemedial band formed by six brown spots; a small brown spot at upper angle of cell with another above it on costa; an oblique series of rather elongate brown spots from costa before apex to vein 4, followed by an obliquely incurved series of smaller spots to inner margin near the antemedial band, the spots between veins 4 and 2 obolescent. Hind wing white.

Hab. Br. N. Guinea, Avola (*Pratt*), type † ♀ in Coll. Bethune-Baker. *Exp.* 36 millim.

1679 *a*. Mænas buryi.

Diacrisia buryi, Roths. Nov. Zool. xvii. p. 126, pl. 14. f. 19 (1910).

♂. Head yellow, white behind; palpi black fringed with yellow below; antennæ black; thorax white, the tegulæ edged with yellow; pectus in front and base of legs yellow, the fore coxæ and femora with black patches, the fore and mid tibiæ and tarsi black above, the hind tibiæ and tarsi banded with black; abdomen yellow with the 1st two segments, the anal tuft and ventral surface white, dorsal and lateral series of black spots. Fore wing white, the costal edge yellow; a black antemedial line interrupted at the veins, excurved to median nervure, then slightly incurved; a fine black postmedial line, interrupted from above vein 6 to above vein 2 and slightly incurved on inner area. Hind wing semihyaline white with black discoidal point.

Hab. Gold Coast, Gambaga (*Bury*), type † ♂ in Coll. Rothschild; N. Nigeria, Zungeru (*Macfie*), 1 ♂, Minna (*Macfie*), 1 ♂. *Exp.* 36 millim.

*1679 *b*. Mænas affinis. (Plate LVII. fig. 26.)

Diacrisia affinis, Roths. Nov. Zool. xvii. p. 127 (1910).

♂. Head and thorax white, the tegulæ edged with yellow; palpi black at sides towards tips; frons with some yellow above; antennæ black, the basal joint yellow; fore coxæ and the femora above yellow, the tibiæ and tarsi black; abdomen orange-yellow, the base, extremity, and ventral surface white, dorsal and lateral black spots on medial segments. Fore wing white, semihyaline except the marginal areas; antemedial black points at costa, below median nervure, and above vein 1; a medial black point on costa; two postmedial black points on costal area and points above and below

vein 1 ; a subterminal black point on costa. Hind wing white, semihyaline except the marginal areas.

Hab. S. Nigeria, Lokoja (*Cator*), type† ♂ in Coll. Rothschild. *Exp.* 40 millim.

1679 *c*. **Mænas intacta.** (Plate LVII. fig. 27.)

Mænas intacta, Hmpsn. Nov. Zool. xxiii. p. 234 (1916).

♀. Head and thorax pure white; antennæ blackish except at base; palpi with the 2nd joint brown behind; femora yellow above, the fore femora with brown streak on inner side, the mid and hind tibiæ and the tarsi banded with black-brown; abdomen orange-yellow, the base, extremity, and ventral surface white, a dorsal series of small black spots on the yellow segments and lateral series of small black spots. Wings pure white and somewhat semihyaline, the hind wing with slight blackish discoidal point.

ab. 1. Frons with some yellow above; tegulæ edged with yellow; fore wing with antemedial black points below costa and cell and above inner margin, a discoidal point and postmedial points above and below vein 1; hind wing with distinct black discoidal point.

Hab. N. Nigeria, Kano (*F. G. Brown*), 1 ♀, type, Bauchi Prov. Kabwir (*G. T. Fox*), 1 ♀. *Exp.* 44 millim.

1680. **Mænas vestalis**, insert (syn.) :—

Diacrisia echo, Roths. Nov. Zool. xvii. p. 122 (1910) ♂.

The type ♂ is a ♀ without locality, the type ♀ labelled "Asia" is *Estigmene acræa*.

*1680 *a*. **Mænas decemmaculata.** (Plate LXVI. fig. 13.)

Diacrisia decemmaculata, Roths. Nov. Zool. xxiii. p. 271 (1916).

♂. Head and tegulæ yellow, the latter with black spots at middle; thorax white with a faint brownish tinge; abdomen yellow, whitish at base; antennæ white tinged with rufous; palpi black towards tips; pectus and legs white, the fore and mid tibiæ and tarsi with black streaks. Fore wing white tinged with brownish grey; a round black discoidal spot and subterminal spot above discal fold. Hind wing white; a round black discoidal spot and subterminal points at discal and submedian folds.

Hab. Congo, Ubanghi R., type† ♂ in Coll. Rothschild. *Exp.* 34 millim.

*1681 *a*. **Mænas flavescens.** (Plate LVII. fig. 28.)

Carama flavescens, Schaus, J.N.Y. Ent. Soc. iv. p. 57 (1896).

♀. Head, thorax, and abdomen yellowish white. Fore wing yellowish white. Hind wing white.

Hab. Brazil, São Paulo (*D. Jones*). *Exp.* 42 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus. Dr. H. G. Dyar states that it belongs to the genus *Mænas*.

1686. **Mænas surgens**, insert (syn.) :—

Malloxephala venata, Roths. Nov. Zool. xvii. p. 177, pl. 14. f. 16 (1910).

♂. Antennæ white with the branches rufous; thorax whiter; fore wing paler.

Brazil, Minas Geraes, type † ♂ *venata* in Coll. Rothschild. *Exp.* 38 millim.

*1686 *a*. **Mænas lehmanni**. (Plate LVIII. fig. 1.)

Antarctia lehmanni, Roths. Nov. Zool. xvii. p. 180 (1910).

♂. Head and thorax white, faintly tinged with brown; the vertex of head and base of tegulæ faintly tinged with yellowish; palpi and sides of frons blackish; antennæ with the branches rufous; pectus yellowish behind; tibiæ and tarsi streaked with blackish; abdomen yellow clothed with white hairs. Fore wing white faintly tinged with brownish except the costal area and below submedian fold. Hind wing white faintly tinged with brown except the cilia.

Hab. Colombia, Papayan type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

1686. *b*. **Mænas fosteri**. (Plate LVIII. fig. 2.)

Mænas fosteri, Hmpsn. A. M. N. H. (7) xv. p. 446 (1905).

♂. Head and thorax fulvous; sides of palpi and frons, tibiæ and tarsi grey-brown; abdomen whitish, the basal half of dorsum fulvous. Fore wing pale brownish ochreous; the costal area rather more fulvous; the cilia white. Hind wing white with slight fulvous hair at base.

Hab. Paraguay, Sapucay (*W. Foster*), 2 ♂ type. *Exp.* 34 millim.

*1686 *c*. **Mænas aurantiaca**.

Antarctia aurantiaca, Roths. Nov. Zool. xvii. p. 179 (1910), & xviii. pl. 6, ff. 5, 6.

♂. Head, thorax, and abdomen bright rufous, the last white at extremity; palpi, tibiæ, and tarsi dark brown. Fore wing pale greyish rufous, the costal edge dark on basal half. Hind wing semihyaline white.

♀. Head and thorax pale fulvous; abdomen orange-yellow,

brown at base and white at extremity; tarsi brown. Fore wing pale fulvous. Hind wing very pale semihyaline fulvous.

Hab. Bolivia, Buenavista (*Steinbach*), type † ♂ in Coll. Rothschild; Brazil, Minas Geraes, Preto, Rio Janeiro; Paraguay, Sapucay. *Exp.*, ♂ 38, ♀ 40 millim.

*1686 *d*. Mænas peruensis. (Plate LVIII. fig. 3.)

Mænas peruensis, Dogn. Ann. Soc. Ent. Belg. li. p. 228 (1907).

♂. Head, thorax, and abdomen dark red-brown; antennæ with the branches rufous; femora yellow above. Fore wing uniform dark red-brown. Hind wing white faintly tinged with brown, the costal area and terminal area more strongly tinged with brown; the underside with the costal area suffused with brown.

Hab. Peru, Cuzco, type † ♂ in Coll. Dognin. *Exp.* 40 millim.

*1687 *a*. Mænas tapina. (Plate LXIX. fig. 2.)

Altimænas tapina, Dyar, Pr. U.S. Nat. Mus. xlv. p. 642 (1913).

♂. Head, thorax, and abdomen clothed with long rough woolly black and red-brown hair. Fore wing ochreous white tinged with brown, the veins whiter; an oblique fuscous antemedial shade; a small black discoidal spot; postmedial line whitish, defined on inner side by diffused fuscous brown, below the cell extending to the antemedial shade, slightly defined on outer side, excurved to vein 4, then incurved; a terminal series of diffused blackish spots; cilia pale. Hind wing white slightly tinged with ochreous; slight dark subterminal spots above and below vein 6 and below vein 2. Underside ochreous white; fore wing with the costal area suffused with fuscous and a dark patch in end of cell.

Hab. Peru, Coropuna, 14,500′. *Exp.* 30 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

*1688 *a*. Mænas affinis.

Mænas affinis, Roths. Nov. Zool. xvii. p. 118, pl. 14. f. 27 (1910).

♀. Head and tegulæ dark brown, the latter fulvous yellow at tips; thorax red-brown with some fulvous yellow mixed; abdomen dark brown with lateral tufts of fulvous yellow hair at base, the anal tuft brownish ochreous; pectus, legs, and ventral surface of abdomen dark brown. Fore wing dark brown; some ochreous on inner margin near base; traces of a dark antemedial line angled outwards in submedian fold; a faint dark discoidal spot; an oblique diffused slightly curved postmedial line faintly defined on outer side by ochreous and slightly angled inwards on vein 1. Hind wing dark brown, the base of inner margin, the costal and terminal areas faintly tinged with ochreous; a faint diffused curved dark subterminal band obscurely defined on inner side by ochreous; the underside with indistinct curved dark postmedial band.

Hab. Brazil, Petropolis, type † ♀ in Coll. Rothschild. *Exp.* 76 millim.

1689 *a*. Mænas tolimensis. (Plate LVIII. fig. 4.)

Mænas tolimensis, Dogn. Mém. Soc. Ent. Belg. xix. p. 130 (1912).

♂. Head and thorax black-brown; antennæ with the branches rufous; abdomen fulvous with traces of black-brown bands, the ventral surface black-brown. Fore wing dark brown; an obscure dark discoidal bar; a diffused dark postmedial line excurved to vein 4, then incurved, traces of another curved line beyond it. Hind wing brown, the interspaces of basal half paler; the inner area with a faint yellowish tinge and with a faint dark bar towards tornus; traces of a dark subterminal line; the underside with dark discoidal spot, the inner area distinctly yellow.

♀. Antennæ whitish; thorax greyish brown; abdomen with distinct black bands, the anal tuft ochreous; fore wing greyish brown, the outer postmedial line more distinct; hind wing paler, the subterminal line more distinct.

Hab. Colombia, San Antonio (*Fassl*), 1 ♂, 1 ♀, Rio Dagua, Naranjito (*Palmer*), 1 ♀, Tolima (*Fassl*), type † ♂, ♀ in Coll. Dognin. *Exp.*, ♂ 42, ♀ 58 millim.

*1689 *b*. Mænas palmeri.

Antarctia palmeri, Roths. Nov. Zool. xvii. p. 177, pl. 14. ff. 15, 24 (1910).

♂. Head and thorax dark brown slightly mixed with greyish ochreous; antennæ brownish white; abdomen fulvous yellow mixed with brown, the ventral surface grey-brown. Fore wing brown with some greyish scales mixed; traces of an antemedial line on inner area; a blackish point at lower angle of cell; a very indistinct diffused dark postmedial line, oblique below vein 4. Hind wing brown mixed with greyish and with faint traces of a dark subterminal line. Underside of both wings with slight dark discoidal lunule.

♀. Darker; abdomen banded with fulvous yellow, the anal tuft ochreous.

Hab. W. Colombia, San Antonio (*Palmer*), type † ♂, ♀ in Coll. Rothschild, Popayan, Cauca Valley, Corinte, Torne, Bogotá, Andinamarca, Quadalite. *Exp.*, ♂ 36, ♀ 52 millim.

*1689 *c*. Mænas haenschi.

Mænas haenschi, Roths. Nov. Zool. xvii. p. 179, pl. 14. f. 18 (1910).

♀. Head, thorax, and abdomen dark brown, the last with the terminal segments brownish white; antennæ with the shaft whitish towards base. Fore wing dark brown; a faint dark discoidal patch; a very indistinct postmedial band excurved to vein 4, then incurved and an indistinct broad curved subterminal band. Hind wing brown, slightly semihyaline; a faint dark curved subterminal band.

Hab. Ecuador, Santa Inez (*Haensch*), type † ♀ in Coll. Rothschild. *Exp.* 54 millim.

*1690 *a*. Mænas cnethocampoides.

Antarctia cnethocampoides, Roths. Nov. Zool. xvii. p. 179, pl. 14. f. 26 (1910).

♂. Head, thorax, and abdomen dark brown slightly mixed with greyish, the last with yellow subdorsal fasciæ on basal segments; femora orange above. Fore wing brown mixed with grey; traces of a curved dark antemedial line and of a point in middle of cell; a black discoidal lunule; two indistinct postmedial lines excurved to vein 4, then incurved, the outer with wedge-shaped black patch at costa, slight spots below vein 4 and at vein 2 and inner margin. Hind wing creamy white with some yellow hair on inner area; a slight dark point at upper angle of cell and slight subterminal spots at costa and veins 5, 2, and 1; the underside with the costal area suffused with brown to beyond middle and a slight streak in middle of cell.

Hab. N. Argentina, Salta (*Steinbach*), type † ♂ in Coll. Rothschild. *Exp.* 32 millim.

1690. Mænas juruana, insert (syn.):—

Antarctia klagesi, Roths. Nov. Zool. xvii. p. 178 (1910).

♀. Hind wing wholly suffused with brown,

Brazil, Amazons, Fonte Boa (*Klages*), type † ♀ in Coll. Rothschild. *Exp.* 40 millim.

*1691 *a*. Mænas quadrata. (Plate LVIII. fig. 5.)

Antarctia quadrata, Roths. Nov. Zool. xvii. p. 177 (1910).

♀. Head and thorax red-brown; femora yellow above; abdomen dull yellow with dorsal reddish brown stripe except at extremity, the ventral surface red-brown. Fore wing red-brown slightly irrorated with greyish; a small dark discoidal lunule; a faint diffused curved brown subterminal line. Hind wing pale brown, whitish towards base.

Hab. Paraguay, Sipucay (*Foster*), type † ♀ in Coll. Rothschild. *Exp.* 45 millim.

*1691 *b*. Mænas thursbyi. (Plate LVIII. fig. 6.)

Antarctia thursbyi, Roths. Nov. Zool. xvii. p. 178 (1910).

♂. Head and thorax brown mixed with grey; palpi and frons darker brown; pectus and femora fulvous yellow; abdomen fulvous yellow, tinged with brown at extremity above and below. Fore wing reddish brown irrorated with grey; yellowish streaks below costa before middle and at base of inner margin. Hind wing whitish suffused and irrorated with brown except at base and inner margin which are tinged with yellow; the underside with the base yellow.

Hab. Patagonia, Chubut, Val del Lago Blanco (*Thursby*), type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

1693. **Pseudalus leos**, insert (syn.):—

Pseudalus leos occidentalis, Roths. Nov. Zool. xvi. p. 52, pl. 7. f. 27 (1909).

Peru, Carabaya, Tinguri, R. Inambari, La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild.

*1693 *a*. **Pseudalus aurantiaca.**

Pseudalus aurantiacus, Roths. Nov. Zool. xvi. p. 52, pl. 7. ff. 25, 26 (1909).

♂. Head and thorax yellow, the palpi, antennæ, and base of tegulæ tinged with red-brown, the patagia with small red-brown spot, the thorax with dorsal red-brown stripe; abdomen yellow tinged with crimson. Fore wing yellow, the interspaces suffused with orange-red, less strongly towards termen except at apex; the costal edge red-brown; antemedial line brown, angled outwards below costa, then oblique and with dark points at the veins; a dark discoidal point; an oblique brown line with minute dark streaks on the veins, from costa just before apex to inner margin just beyond middle where it expands into a patch. Hind wing yellow tinged with crimson except on costal area and inner margin.

♀. Head and thorax with the red-brown markings almost obsolete; abdomen yellow with large brownish ochreous anal tuft; fore wing without the orange-red in the interspaces; hind wing very faintly tinged with crimson.

Hab. Surinam, Maroewym Valley, Aroewarwar Creek (*Klages*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 24, ♀ 36 millim.

1693 *b*. **Pseudalus strigata.**

Pseudalus strigatus, Roths. Nov. Zool. xvi. p. 52, pl. 7. f. 24 (1909).

♀. Head and thorax yellow, the patagia and dorsum of thorax with orange-red streaks; palpi black behind; abdomen yellow, dorsally tinged with orange at base, the anal tuft ochreous. Fore wing yellow, the interspaces almost filled in with orange-red streaks; antemedial line brown with dark points on the veins and in discal and submedian folds, angled outwards below costa, then oblique to vein 1 where it terminates; a dark discoidal point; the costal edge brown towards apex; a brown line with minute black streaks on the veins from costa before apex, very oblique from just below costa to inner margin on which there is a short brown streak before it; cilia rufous. Hind wing yellow tinged with crimson.

♂. Fore wing with the red streaks in the interspaces less prominent; hind wing less strongly tinged with crimson.

Hab. Fr. Guiana, St. Laurent Maroni (*Schaus*), 1 ♂; Br. Guiana, Tumatumari; Peru, R. Inambari, La Oroya (*Ockenden*), type † ♀ in Coll. Rothschild, Carabaya, Tinguri. *Exp.*, ♂ 38, ♀ 42 millim.

*1694 *a*. Pseudalus salmonacea.

Idalus salmonaceus, Roths. Nov. Zool. xvi. p. 24, pl. 4. f. 11 (1909).

Antennæ of male serrate and fasciculate; hind wing with vein 8 stalked with 7 to near termen.

♂. Head yellow; palpi black; antennæ with the terminal half blackish; thorax yellow, the tegulæ and patagia tinged with salmon-pink; pectus and legs yellow, the fore femora above and the tibiæ on outer side black, the fore and mid tarsi at extremities and the

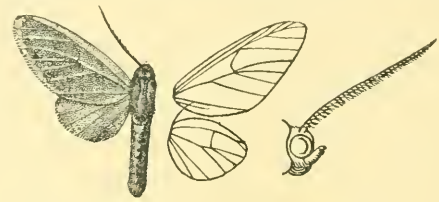

Fig. 90.—*Pseudalus salmonacea*, ♂. ½.

hind tarsi black; abdomen yellow with dorsal black points on 4th to 7th segments. Fore wing yellow suffused with salmon-pink leaving the costa, veins, and termen yellow. Hind wing yellow, the inner area suffused with salmon-pink.

♀. Much darker and with carmine suffusion; hind wing wholly rose-pink.

Hab. Peru, S. Domingo, Tinguri (*Ockenden*), type † ♂ in Coll. Rothschild, Rio Huacamayo. *Exp.* 36 millim.

*1694 *b*. Pseudalus pseudidalus.

Automolis pseudidalus, Roths. Nov. Zool. xvi. p. 39, pl. 6. f. 14 (1909).

Hind wing with veins 6, 7 stalked, 8 from near end of cell.

♀. Head and thorax yellow tinged with pale red; palpi above, frons, and antennæ redder; abdomen pale crimson, the extremity

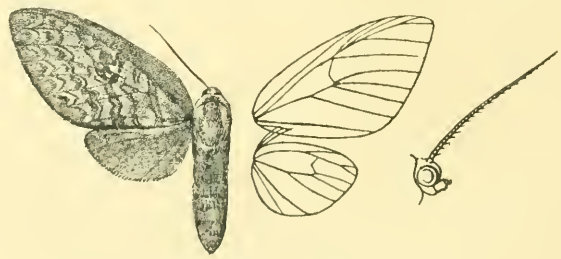

Fig. 91.—*Pseudalus pseudidalus*, ♀. ½.

and ventral surface brownish white. Fore wing yellow, the costal area suffused with pale red; subbasal and antemedial narrow pale red bands from the costal area to inner margin; a pale red spot in cell towards extremity; a pale brown patch in and beyond end of

cell divided up into spots by the yellow discocellulars and veins, and a small hyaline spot on it; an oblique slightly waved pale red line from lower angle of cell to inner margin and a similar narrow band just beyond the cell from costa to inner margin; an oblique subterminal band defined by dentate pale red lines with a series of pale brown lunules near its inner edge; a dentate pale red line just before termen; cilia red-brown. Hind wing pale yellow suffused with crimson except on costal area.

Hab. Brazil, Up. Amazons, Fonte Boa (*Klages*), type † ♀ in Coll. Rothschild. *Exp.* 58 millim.

Page 256. Genus **DIACRISIA**, insert :—

	Type.
Spilosoma, Curt. Brit. Ent. ii. pl. 92 (1825)	*lubricipeda*

which has priority.

Rhagonis, Wlk. Trans. Ent. Soc. (3) i. p. 270 (1862).....	*vagans.*
Carbisa, Moore, Lep. Atk. p. 41 (1879)	*renosa.*
Eminaria, Beth.-Baker, A. M. N. H. (8) ii. p. 262 (1908).	*investigatorum.*

*1697 *a*. Spilosoma roseicincta. (Plate LVIII. fig. 7.)

Diacrisia roseicincta, Dogn. Mém. Soc. Ent. Belg. xxii. p. 4 (1913).

♂. Head and thorax yellow-green; antennæ fulvous; frons ochreous, black at sides; palpi crimson, black at tips; pectus in front, fore coxæ, and a streak below the wings crimson; fore femora black above towards extremity; abdomen pale yellow-green, dorsally pale crimson at base. Fore wing semihyaline yellow-green, the costal edge and cilia yellow; a black point at lower angle of cell. Hind wing semihyaline yellow-green, the cilia yellow.

Fore wing in one specimen with vein 10 from the cell.

Hab. Colombia, Monte Tolima (*Fassl*), type † ♂ in Coll. Dognin. *Exp.* 54 millim.

*1699 *a*. Spilosoma aurocostata.

Diacrisia aurocostata, Oberth. Ét. Lép. Comp. v. i. p. 337, pl. lxxxiii. f. 788 (1911); Seitz, Gr.-Schm. pal. ii. p. 446, pl. 56 *i*.

♂. Head, thorax, and abdomen white, the last dorsally yellow with black bars except the base and anal tuft and with lateral series of black spots. Fore wing white with orange-yellow costal fascia and fuscous shades in, below, and just beyond the cell and above vein 1 except towards termen, showing through from black markings on underside, a streak above vein 5 more elongate. Hind wing white with blackish discoidal spot and slight subterminal streak-like marks above and below veins 5, 2, 1.

Hab. W. China, Ta-Chien-lu. *Exp.* 42 millim. This species is unknown to me.

1701 *a*. Spilosoma rhodophilodes. (Plate LVIII. fig. 8.)

Diacrisia rhodophilodes, Hmpsn. A. M. N. H. (8) iv. p. 360 (1909).

♂. Head and thorax white; palpi crimson, black at tips; sides of frons and antennæ black; neck with crimson ring and the

tegulæ crimson below; fore femora crimson above, the tibiæ and tarsi black; mid and hind femoro-tibial joints and the tarsi black above; abdomen crimson, the base, anal tuft, and ventral surface white, a lateral series of black points. Fore wing white, thinly scaled; an antemedial black point in upper part of cell and two obliquely placed above inner margin; a black point in upper angle of cell; a postmedial series of black points, excurved from below costa to vein 4, then oblique, met at vein 5 by an oblique series of double minute black streaks on each side of veins from apex; minute subterminal black streaks on each side of veins 5, 4, 3. Hind wing white, thinly scaled; a small black spot at upper angle of cell and subterminal spots above vein 5 and between vein 2 and tornus.

♀. Palpi and neck without crimson; fore femora black above; abdomen white tinged with ochreous brown towards extremity and with subdorsal and sublateral series of black spots; fore wing with the postmedial series of spots obsolete towards costa.

Hab. Formosa, Kagi Distr., 4 ♂, 1 ♀ type; Arizan (*Wileman*), 5 ♂, Buntaizan (*Wileman*), 1 ♀. *Exp.*, ♂ 40, ♀ 46 millim.

1701 *b*. Spilosoma unilinea.

Diacrisia unilinea, Roths. Nov. Zool. xvii. p. 133 (1910), & xviii. pl. 4. f. 16.

Head and thorax white; palpi black, crimson in front; frons black at sides; antennæ black; some crimson below shoulders and on fore coxæ; legs blackish and white; abdomen crimson with dorsal and lateral series of black spots, the ventral surface white. Fore wing white faintly tinged with ochreous, thinly scaled; a small blackish spot at upper angle of cell sometimes present; an oblique slightly incurved maculate narrow blackish band from vein 6 below apex to inner margin beyond middle. Hind wing white, thinly scaled; a black spot on upper discocellulars; a subterminal blackish point in discal fold; an oblique series of small black spots from above vein 2 to termen at vein 1.

ab. 1. Fore wing with the maculate band slighter and not extending above vein 4; hind wing with a single subterminal spot below vein 2.

ab. 2. Thorax and fore wing more strongly tinged with ochreous, the latter sometimes with the postmedial band curved inwards to below costa and joined by minute paired streaks on each side of veins 7, 6 from below apex and with minute subterminal streaks between veins 5 and 3.

Hab. C. China, Szechuen, Nanchuen; W. China, Pu-tsu-fong, 4 ♂, type † ♂ in Coll. Rothschild; Punjab, Dalhousie, 2 ♂. *Exp.* 40–44 millim.

1703. Spilosoma multivittata, insert:—

subsp. *assama*, Roths. Nov. Zool. xvii. p. 122 (1910).

♂. Head, thorax, and fore wing tinged with ochreous, the last with the markings strong and dark with a fascia on inner margin

connecting the subbasal and postmedial bands; hind wing with the inner area tinged with yellow, the subterminal spots towards tornus confluent.

Assam, Khasis, type † ♂ in Coll. Rothschild.

1703 *a*. Spilosoma neglecta. (Plate LVIII. fig. 9.)

Diacrisia neglecta, Roths. Nov. Zool. xvii. p. 121 (1910).

♂. Head and thorax white; palpi black fringed with white hair; sides of frons black; antennæ with the branches blackish; fore femora above and tibiæ at inner side black, the tarsi banded with black; abdomen orange with dorsal and lateral series of black spots obscured by orange hair, the anal tuft and ventral surface white. Fore wing white, sometimes with traces of a fuscous discoidal spot,

♀. Abdomen with large dorsal and lateral black spots and a sublateral series except on basal and terminal segments; hind wing with slight fuscous discoidal spot and traces of subterminal spots below veins 6 and 2.

Hab. Sikhim (*Möller*), 1 ♂, 1 ♀, type † ♂ in Coll. Rothschild; Assam, Naga Hills; Madras, Rampur, Palni Hills; Burma, Bernardmyo. *Exp.*, ♂ 38, ♀ 40 millim.

1704. Spilosoma indica, insert (syn.) :—

Diacrisia flavifrons, Roths. Nov. Zool. xvii. p. 122 (1910).
Diacrisia albens, Roths. Nov. Zool. xvii. p. 137 (1910).

Madras, Shevaroy Hills, type † ♂ *flavifrons* in Coll. Rothschild; Travancore, Pirmád, type † ♀ *albens* in Coll. Rothschild.

1707. Spilosoma nivea.

Larva. Wileman, Phil. Journ. Sci. xii. p. 236, pl. i. f. 8 ((1917).

Head ochreous black with white V-mark; body red-brown with darker intersegmental bands; dorsal and lateral fascicles of hair grey with a reddish tinge; spiracles white; legs and prolegs ochreous. Food-plants: *Plantago major* and *Taraxacum officinale*.

1710. Spilosoma virginica, insert :—

ab. *fumosa*, Streck. Lep. Rhop. & Het. Suppl. 3, p. 28 (1900).

Blackish brown; fore wings with the veins narrowly white.
Larva swimming. Dow, Bull. Brooklyn Ent. Soc. ix. p. 62 (1915).

*1711 *a*. Spilosoma lifuensis. (Plate LVIII. fig. 10.)

Diacrisia lifuensis, Roths. Nov. Zool. xvii. p. 122 (1910).

♂. Head and thorax white with a few brownish hairs; palpi crimson, black at tips; sides of frons and antennæ black-brown; fore coxæ and femora above crimson, the tibiæ and tarsi streaked

with black-brown; abdomen crimson, the base, extremity, and ventral surface white. Wings uniform silvery white.

♀. Abdomen with dorsal series of small black spots on the crimson segments.

Hab. Loyalty Is., Lifu, type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 34, ♀ 44 millim.

*1712 *a*. Spilosoma cæria.

Diacrisia cæria, Püng. Iris, xix. p. 79, pl. vi. f. 7 (1906); Seitz, Gr.-Schm. pal. ii. p. 88, pl. 17 *a*.

♂. Head and thorax pure white; palpi, sides of frons, antennæ, tibiæ, and tarsi black, the fore femora with some crimson hair above; abdomen white, crimson above except at base and extremity, with dorsal series of black bars and lateral and sublateral series of small black spots. Fore wing pure white, the apical part of costal area faintly tinged with brown; a small black spot below base of costa and obliquely placed subbasal spots below costa and cell, sometimes with points between them; four obliquely placed antemedial spots from costa to below cell and spots above and below vein 1; a small spot at upper angle of cell and rather X-shaped mark at lower angle; a more or less developed postmedial series of small spots, sometimes forming a maculate band, excurved from costa to vein 4, then oblique; small subterminal spots below costa, above vein 5, below vein 2, and above vein 1. Hind wing pure white with black discoidal bar and small subterminal spots below costa, on vein 5, and at veins 2 and 1.

Hab. Tibet, Kuku-Nor, type † ♂ in Coll. Püngeler. *Exp.* 44 millim.

1713. Spilosoma robusta, insert :—

subsp. *hainana*, Roths. Nov. Zool. xvii. p. 123 (1910).

Smaller; fore wing of male with small antemedial black spot above vein 1; female with postmedial black point above vein 1 only and the hind wing with the discoidal spot and with subterminal spot below vein 2.

Hab. China, Hainan, Cheng-Mai, type ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 42, ♀ 56 millim.

1716. Spilosoma punctulata, insert (syn.) :—

Spilosoma nyassana, Bartel, Iris, xvi. p. 175 (1903).
Spilosoma nivaria, Bartel, Iris, xvi. p. 177 (1903).

1716 *a*. Spilosoma cincticorpus, n. sp. (Plate LVIII. fig. 11.)

♀. Head and thorax white; palpi black above; antennæ black below; back of head and tegulæ at tips yellow, the tegulæ, shoulders, patagia, and metathorax with black spots; fore coxæ

black and yellow, the femora yellow above, the fore and mid tibiæ streaked with black, the tarsi banded with black; abdomen dorsally yellow, the two basal and anal segments white, the 3rd segment with dorsal and subdorsal black spots, the five following segments with black bands, a lateral series of black spots, the three medial segments with small sublateral spots. Fore wing white; a black spot at base of cell; a medial black point above vein 1; a point above or below vein 2 towards its origin, a postmedial point below vein 2 on right side only, a few subterminal points and a terminal point at submedian fold. Hind wing white, thinly scaled; a black discoidal point and two submedial points in submedian fold on right side only.

Hab. Uganda, Entebbe (*Neave*), 1 ♀ type. *Exp.* 48 millim.

1716 *b*. **Spilosoma microsticta**, n. sp. (Plate LVIII. fig. 12.)

♂. Head and thorax white, the tegulæ edged with yellowish, the tegulæ and patagia with small black spots, the prothorax with slight black streak; antennæ black; palpi black at sides; femora orange above and with black spots at extremities, the fore and mid tibiæ with black stripes, the hind tibiæ with black bands, the tarsi black ringed with white; abdomen orange-yellow, the base, extremity, and ventral surface white, lateral and sublateral series of black spots. Fore wing white; a small black spot at base of cell and subbasal point on costa; small antemedial spots below costa and cell and above inner margin; two black discoidal points and points above veins 2 and 3; obliquely placed postmedial points below vein 6 and above 5, subterminal points above veins 4 and 3, and a point just before termen below vein 3. Hind wing semihyaline white.

Hab. S. Nigeria, Foveados (*Simpson*), 1 ♂ type. *Exp.* 40 millim.

1717 *a*. **Spilosoma tristicta**, n. sp. (Plate LVIII. fig. 13.)

♂. Head and thorax pure white, the tegulæ edged with orange-yellow; antennæ black; the shaft white above; palpi black above; pectus orange-yellow in front; femora orange above and with black spots at extremities, the fore femora and fore and mid tibiæ with black stripes, the tarsi banded black and white; abdomen with the basal segment white, then orange-yellow with dorsal and lateral series of small black spots, the ventral surface white. Fore wing white with antemedial and medial small black spots below the costa. Hind wing white and somewhat semihyaline; a black discoidal point.

Hab. N. Nigeria, Lokoja (*F. G. Brown*), 1 ♂ type. *Exp.* 34 millim.

*1717 *b*. **Spilosoma aureolimbata.**

Amsacta aureolimbata, Roths. Nov. Zool. xvii. p. 157 (1910), & xviii. pl. 3. f. 37.

♂. Head orange, the vertex with black point; palpi except at base and antennæ black; thorax white, the tegulæ tipped with

orange; pectus and legs yellow; the fore and hind tibiæ black above, the extremities of hind femora black, the tarsi black; abdomen yellow with dorsal, lateral, and sublateral series of black spots except on basal and terminal segments. Fore wing silvery white, the costa orange; a black discoidal spot; cilia yellow. Hind wing white, thinly scaled; a blackish discoidal point; cilia yellow.

Hab. Angola, Bihe, type † ♂ in Coll. Rothschild. *Exp.* 50 millim.

*1718 *a*. Spilosoma oligosticta, n. n. (Plate LVIII. fig. 14.)

Estigmene jacksoni, Roths. Nov. Zool. xvii. p. 164 (1901), nec p. 140.

♂. Head and thorax white, the shoulders with black spots, the patagia with black points; palpi black above; antennæ with the branches black; femora yellow above, the fore tibiæ blackish, the tarsi ringed with blackish; abdomen yellow, the base, anal tuft, and ventral surface white, a dorsal series of black spots and lateral points on medial segments. Fore wing white, semihyaline except the marginal areas; obliquely placed antemedial black points below median nervure and above vein 1; a point at lower angle of cell, two subterminal points between veins 8 and 7, and two between veins 4 and 3, and a terminal series. Hind wing white, semihyaline except the marginal areas.

Hab. Uganda, Entebbe (*Jackson*), type † ♂ in Coll. Rothschild, Kampala. *Exp.* 42 millim.

1718. Spilosoma urticæ, insert :—

ab. *nigrostriata*, Schawerda, Verh. zool.-bot. Ges. Wien, lx. p. 220 (1910).
Fore wing with slight black streaks.

ab. *pluripuncta*, Rebel? ined.
Fore wing with numerous black points.

1719. Spilosoma lubricipeda, insert :—

ab. *paucipuncta*, Fuchs, Jabrh. Nass. Ver. lvi. p. 70 (1903).
=*sangaica*.

ab. *unipuncta*, Strand, Arch. Naturv. Christian. xxv. no. 9, p. 23 (1903).
Hind wing with discoidal point only.—Norway.

ab. *ochrea*, Linstow, Intern. Ent. Zeit. v. p. 265 (1911).
for ab. 5.

ab. *brunnea*, Oberth. Ét. Lép. Comp. vi. p. 326, pl. cxxii. ff. 1073–8 (1912).
Fore wing tinged with brown.

ab. *transitoria*, Oberth. Ét. Lép. Comp. vi. p. 326, pl. cxxii. ff. 1079–80 (1912).

ab. *godarti*, Oberth. Ét. Lép. Comp. vi. p. 326, pl. cxxii. ff. 1085–6 (1912).

*1721 *a*. Spilosoma irregularis.

Diacrisia irregularis, Roths. Nov. Zool. xvii. p. 125, pl. 14, f. 25 (1910).

♀. Head and thorax pure white, the vertex of head, tegulæ, patagia, and dorsum of thorax with pale brown patches; palpi and antennæ brown; legs brown and white with the femora crimson above; abdomen pale crimson, white at base, extremity, and on ventral surface, the crimson part with broad dorsal brown bands. Fore wing pure white; a subbasal pale brown band from costa to submedian fold, angled outwards below the cell; an antemedial series of small irregular spots; a broad medial band excurved at median nervure and with irregular edges; a band of small spots and patches just beyond the cell, incurved below lower angle; a postmedial band interrupted between veins 4, 3 and with irregular edges; a subterminal series of dentate spots from costa to vein 3 and a terminal series of spots. Hind wing pure white; a pale brown discoidal spot; a subterminal maculate band, almost interrupted between veins 4 and 3 and very broad towards tornus.

Hab. C. China, Ichang, type † ♀ in Coll. Rothschild. *Exp.* 60 millim.

*1721 *b*. Spilosoma rostagnoi.

Estigmene rostagnoi, Oberth. Ét. Lép. Comp. v. i. p. 336, pl. lxxxii, ff. 771–2 (1911).

♂. Head and thorax white, the patagia and metathorax with black spots; antennæ black; abdomen scarlet with dorsal series of black bars and lateral series of spots, the ventral surface white. Fore wing white; the base of costa with black streak to the slightly curved antemedial series of small black spots; a medial series of partly conjoined black spots, angled outwards below costa, then oblique; a short postmedial black streak on costa, a series of five spots between veins 7 and 3, the two upper spots elongate and the spot below vein 7 conjoined to an oblique maculate fascia from apex, and small spots above and below vein 1; four subterminal spots between veins 6 and 2, the spot below vein 6 nearer the termen and an elongate spot below vein 2; a series of small black spots on the cilia between apex and vein 2. Hind wing white; a black discoidal spot and five small subterminal spots between veins 6 and 1; cilia black at tips at middle.

♀. Thorax with dorsal black streak; fore wing with both subbasal and antemedial series of black spots, the medial, postmedial, and subterminal spots much larger and the series more complete, the medial series angled outwards at end of cell to join the postmedial series; hind wing with subterminal maculate black band, interrupted below costa and ending above tornus.

Hab. W. China, Siao-lu. *Exp.*, ♂ 58, ♀ 62 millim. This species is unknown to me.

*1722 *a*. Spilosoma x-album.

Arctia x-album, Oberth. Ét. Lép. Comp. v. i. p. 335, pl. lxxxii. f. 767 (1911); Seitz, Gr.-Schm. pal. ii. pl. 56 *i*.

Head, tegulæ, and patagia white, the dorsum of thorax fuscous, the tegulæ with black spots, the patagia with black streaks; antennæ black; abdomen scarlet, the base fuscous followed by dorsal black bands, the ventral surface white. Fore wing white; two subbasal black points below costa and an oblique mark on inner margin; an antemedial band from costa to median nervure, expanding on inner and outer sides on costa and median nervure, conjoined at costa to an irregular U-shaped medial mark extending to below end of cell, where it is conjoined to an irregular patch on inner margin emitting a spur inwards above vein 1; irregular postmedial spots on costa, below vein 6, between veins 4 and 2, and on inner margin; irregular patches before termen below apex and at middle, and a slight streak at submedian fold. Hind wing white; some fuscous at base of inner margin; a black discoidal spot; a lunule beyond lower angle of cell with two points below it; subterminal spots on costa, between veins 4 and 2, and at submedian fold; a small spot on termen below apex and irregular patch at discal fold. Underside of fore wing with some scarlet at base of costa.

Hab. W. China, Ta-chien-lu. *Exp.* 42 millim. This species is unknown to me.

*1722 *b*. Spilosoma pauper.

Arctia pauper, Oberth. Ét. Lép. Comp. v. i. p. 335, pl. lxxxii. f. 769 (1911); Seitz, Gr.-Schm. pal. ii. pl. 56 *i*.

♀. Head white, the vertex pink; antennæ black; thorax white, the tegulæ with black spots and pink edges, the patagia and dorsum of thorax with broad fuscous stripes; abdomen scarlet with dorsal and lateral series of black spots. Fore wing fuscous; the veins streaked with white; a small antemedial white spot below costa and bar across submedian interspace angled inwards along vein 1; a quadrate patch at middle of costa and oblique bar below the cell; a quadrate spot beyond the cell in discal fold emitting a streak above vein 5 to the subterminal band; an oblique bar from costa before apex and very irregular band between discal and submedian folds; cilia chequered white and fuscous. Hind wing white; a fuscous discoidal spot; subterminal fuscous spots at costa, discal and submedian folds, the latter with a slight streak above it, and at vein 1; a terminal series of points from apex to vein 2. Underside of fore wing with the basal half of inner area white, the antemedial and medial marks below the cell conjoined.

Hab. W. China. Siao-lu. *Exp.* 50 millim. This species is unknown to me.

1722 *c*. **Spilosoma dollmani**, n. sp. (Plate LXIX. fig. 5.)

♂. Head and thorax white, the vertex of head with small black spot, the tegulæ slightly edged with orange and with dorsal and lateral black spots, the patagia with black spots at shoulders and middle, the pro- and mesothorax with black stripe, the metathorax with black spot, the antennæ black, the frons black at sides, the palpi black with some orange at extremity of 1st joint and white at extremity of 2nd; abdomen orange with dorsal series of black spots except on two basal segments, forming bars on the two terminal segments, the anal tuft white at extremity; pectus, legs, and ventral surface of abdomen white, the femora orange above, the fore tibiæ black above except at extremity, the mid and hind tibiæ black at base and with band before extremity on mid tibiæ conjoined to a streak at side, the tarsi black with some white at the joints, the abdomen with lateral and sublateral series of black spots. Fore wing white: a black spot at base; three subbasal black spots from costa to below the cell with two black spots beyond them below the cell and one above inner margin followed by spots above and below vein 1; an antemedial black maculate band oblique to below the cell, then erect, conjoined in the cell to an incurved medial band from costa to below the cell, where it forms a rather V-shaped patch confluent with the postmedial marks; a spot on costa above end of cell, bidentate below, and two spots above middle of inner margin; a small postmedial spot below costa followed by a very irregular maculate band from costa to vein 2, oblique towards costa, at middle angled outwards and enclosing a small white spot and angled inwards and connected with the medial markings; three minute postmedial black spots between vein 2 and inner margin; a terminal series of black spots from below apex to above tornus, the spot below vein 2 triangular. Hind wing white, the inner area clothed with orange hair; a minute black discoidal spot, small subterminal spots above vein 5 and below veins 2 and 1; an irregular black terminal band from apex to above vein 2, enclosing a minute white spot below vein 3, and a spot above vein 1.

♀. Vertex of head without the black spot; fore wing with the medial and postmedial black markings more extensive, the antemedial band conjoined at inner margin to the spot before it, the postmedial band to the spots on termen at discal and submedian folds, a small discoidal spot separate from the spot on costa; hind wing tinged with orange-yellow except at costa.

Hab. N.W. Rhodesia, Solwezi (*Dollman*), 1 ♂, 1 ♀ type. *Exp.*, ♂ 52, ♀ 62 millim.

*1723 *a*. **Spilosoma nehallenia.**

Diacrisia nehallenia, Oberth. Ét. Lép. Comp. v. i. p. 337, pl. lxxxiii. f. 786 (1911).

♂. Head and thorax ochreous, the head crimson behind, the tegulæ with dorsal black spot and black at sides, the thorax with

dorsal black streak; antennæ black; abdomen crimson with dorsal and lateral series of black spots, the base ochreous. Fore wing ochreous; a fuscous streak above median nervure, emitting short oblique basal and subbasal streaks in the cell; a fuscous fascia on inner margin from near base to tornus; an oblique series of elongate marks in the interspaces from apex to above vein 1, the marks above and below veins 5 and 2 not extending to termen and without mark between veins 4 and 3 except just before termen; terminal points above and below vein 5, an elongate spot above vein 4, and triangular spot below vein 2. Hind wing ochreous; two small fuscous discoidal spots; a subterminal point below costa and small spots above and below veins 5, 2, and 1.

Hab. W. China, Ta-chien-lu. *Exp.* 52 millim. This species is unknown to me.

*1729*a*. Spilosoma batesi.

Teracotona batesi, Roths. Nov. Zool. xvii. p. 181 (1910). & xviii. pl. 6. f. 22.

♀. Head and thorax yellowish white, the tegulæ with black points, the patagia with black spots; palpi except at base, lower part of frons and antennæ fuscous; legs tinged with brown; abdomen yellow with dorsal series of black spots except at base and extremity and lateral series of spots, the ventral surface white with small sublateral black spots on terminal segments. Fore wing ochreous white thickly striated with pale red-brown; faint brown marks at middle of cell and on upper discocellular and an oblique medial shade from cell to inner margin; a faint oblique shade from costa just before apex to discal fold and oblique shade from vein 2 to inner margin. Hind wing white; a round fuscous discoidal spot, a subterminal spot below vein 2 and spot at extremity of vein 1.

Hab. Sierra Leone; Cameroons, Ja R., Bitye (*Bates*), type † ♀ in Coll. Rothschild. *Exp.* 48 millim.

1730. Spilosoma maculosa, del. *Spilosoma investigatorum.*

1730*a*. Spilosoma diversata. (Plate LVIII. fig. 15.)

Diacrisia diversata, Hmpsn. Nov. Zool. xxiii. p. 234 (1916).

♀. Head and thorax white with a slight creamy tinge, the tegulæ with black spots in one specimen, the shoulders with black spots, the patagia with short curved black streak, the prothorax with short black streak; antennæ black; palpi banded black and yellowish; pectus and legs white, the fore coxæ with brown patches, the femora yellow above, the fore and mid tibiæ streaked with brown, the hind tibiæ with brown band towards extremities, the tarsi banded with brown; abdomen orange-yellow, the base, extremity, and ventral surface white, dorsal and lateral series of black spots. Fore wing white with a slight creamy tinge and

series of irregular grey spots defined by black-brown; a minute black spot at base of cell, a subbasal spot below costa and two below the cell, with sometimes some points in the cell, an elongate grey and black spot beyond them below the cell; an oblique antemedial series of three irregular spots from costa to below the cell and spots above and below vein 1; two elongate medial spots below costa and spots above and below vein 1; a very irregular patch in and below end of cell emitting a streak between veins 4 and 3 to the subterminal series, where it forks; a small spot in upper end of cell, spots above and below base of vein 6 and spot above them on costa; a postmedial spot on costa with slight mark below it, spot above vein 4 and spots above and below vein 1; an oblique subterminal series of spots from costa to vein 4, a spot on vein 2 and spots above and below vein 1; short streaks before termen above and below vein 5, above vein 4 and below 3; a series of small spots on termen and cilia. Hind wing semihyaline white with a small blackish discoidal spot and subterminal spots above vein 5 and below 2; the underside with spot or wedge-shaped mark from middle of costa and sometimes a slight postmedial bar from costa.

Hab. Somaliland (*Drake-Brockman*), 2 ♀ type. *Exp.* 46–52 millim.

1730 *b*. **Spilosoma rattrayi.** (Plate LVIII. fig. 16.)

Diacrisia rattrayi, Roths. Nov. Zool. xvii. p. 129 (1910).

♂. Head and thorax white tinged with ochreous, the tegulæ near tips, patagia at middle, and shoulders with blackish spots; palpi at sides and antennæ black; fore tibiæ streaked with black, the mid tibiæ and the tarsi banded with black; abdomen orange-yellow with dorsal series of black spots. Fore wing white tinged with ochreous and with series of small annulate black spots, the annuli formed by aggregated scales; an antemedial series of five spots, the spot in cell further from base, with spots beyond them below median nervure and above vein 1; a medial series of six spots, excurved at median nervure and the spot on costa filled in with black; a spot in upper angle of cell; a postmedial series of nine spots, excurved between veins 5 and 3 where the two spots are conjoined, then incurved, spots beyond them on costa and above veins 6 and 5; a subterminal series of spots, excurved at vein 5 and angled inwards below vein 4 to the postmedial series, ending at tornus; a terminal series of small black spots from below vein 7 to above 2. Hind wing semihyaline yellowish white.

♀. Abdomen with dorsal and lateral black bands and sublateral series of spots; hind wing with subterminal blackish spots above veins 5 and below 2, the underside with black discoidal point and postmedial points on costa and above and below vein 7.

Hab. Gold Coast, Bibianaha (*Spurrell*), 1 ♀, Kumasi (*Sanders*), 1 ♀; Uganda, Entebbe (*Jackson*, *Rattray*), type† ♂, ♀ in Coll. Rothschild, Mpumu (*Sir D. Bruce*), 2 ♀, Busaga, Kamuli (*Mathers*), 1 ♀. *Exp.*, ♂ 42, ♀ 50 millim.

*1730 *c*. Spilosoma schraderi.

Diacrisia schraderi. Roths. Nov. Zool. xvii. p. 128, pl. 14. f. 29 (1910).

♀. Head and thorax white, the back of head, tegulæ, shoulders, and patagia with small black spots, the metathorax with larger spot; palpi blackish, yellow below; antennæ black, white towards base; pectus and legs yellow, the tibiæ and tarsi banded with black; abdomen yellow, the extremity whitish, dorsal, lateral, and sublateral series of black spots. Fore wing white with numerous grey spots edged with black, mostly small but varying much in size and shape, some of them forming traces of antemedial and medial lines angled outwards in cell; a series of small black spots on termen and cilia. Hind wing pale yellow with small black discoidal spot and four subterminal spots, the spot below costa minute; the underside with two small black spots from middle of costa.

Hab. Eritrea, Salomona (*Schrader*), type † ♀ in Coll. Rothschild. *Exp.* 48 millim.

*1730 *d*. Spilosoma pardalina.

Diacrisia pardalina. Roths. Nov. Zool. xvii. p. 128. pl. 14. f. 14 (1910).

♀. Head and thorax white with grey patches edged with black on back of head, tegulæ, shoulders, patagia, pro-, meso- and metathorax; palpi black, yellow below; lower part of frons blackish; antennæ black; pectus white; legs black ringed with yellow; abdomen orange, the extremity and ventral surface white, a dorsal series of short black bands and lateral, sublateral, and subventral series of black spots. Fore wing creamy white with numerous grey spots edged with black, forming subbasal, antemedial, medial, and postmedial series and two subterminal series running into one another and terminating at vein 3; a series of grey spots edged with black on termen and cilia. Hind wing pale semihyaline yellow; a small brown discoidal lunule; a subterminal maculate band from costa to vein 4 and from vein 3 to termen at vein 1; a terminal series of black points and striæ from apex to vein 2; the underside with some black at base of costa, a bar from middle of costa to discal fold and short postmedial bar.

Hab. Uganda, Victoria Nyanza, Ukerewe, type † ♀ in Coll. Rothschild. *Exp.* 50 millim.

1730 *e*. Spilosoma yemenensis. (Plate LVIII. fig. 17.)

Diacrisia yemenensis, Hmpsn. Nov. Zool. xxiii. p. 235 (1916).

♂. Head white tinged with yellow, a slight brown streak on vertex, the antennæ brown, the sides of frons and palpi black; thorax fulvous yellow with black spots on the tegulæ, curved stripes on shoulders and patagia, and three streaks on prothorax; legs brown and whitish, the femora orange-yellow above; abdomen

orange with dorsal and lateral series of blackish spots, the ventral surface whitish. Fore wing creamy white; an irregular subbasal maculate black-brown band; an antemedial maculate black-brown band from costa to below the cell, a spot above vein 1 and elongate spot below it; a large conical patch with waved edges from costa above end of cell to below the cell, and obliquely-placed spots below origin of vein 2 and above vein 1; a large conical patch irrorated with white and with waved edges from apical part of costa to vein 4 and an oblique band with waved edges from vein 3 to inner margin; an incurved subterminal series of spots from vein 5 to tornus; a series of spots on the termen and cilia. Hind wing semi-hyaline yellowish white, the inner area golden yellow; a small blackish discoidal spot, subterminal spot in discal fold and terminal spot at vein 1; the underside with small medial blackish spot below vein 8.

Hab. Arabia, Yemen (*Bury*), 1 ♂ type. *Exp.* 42 millim.

1730*f*. **Spilosoma investigatorum.** (Plate LVIII. fig. 18.)

Spilosoma investigatorum. Karsch. Werther. Deutsch-O.-Afrika. p. 313 (1898).

Spilosoma cribraria, Bartel. Iris, xvi. p. 176 (1903).

Spilosoma mhondana, Bartel. Iris, xvi. p. 179 (1903).

Differs from *D. maculosa* in the fore wing having the spots not centred with grey.

Hab. Sierra Leone (*Mitford*), 1 ♀; Gold Coast, Kumasi (*Sanders*), 1 ♀; Angola, 1 ♂; Uganda (*Christy*), 1 ♀, Victoria Nyanza (*Hannington*), 1 ♀; Br. E. Africa, Mombasa (*Neave*), 1 ♂, Machakos (*Crawshay*), 2 ♂, 1 ♀, Takaungu (*Crawshay*), 1 ♂, Munisu (*Ld. Delamere*), 1 ♂, Njoro (*Cholmley*), 1 ♂, Ntebbi (*Betton*), 1 ♂; Br. C. Africa, Fwambo (*Carson*), 1 ♂, Zomba (*Manningold*), 3 ♀; Mashonaland, Salisbury (*Marshall*), 7 ♂, 4 ♀; S. Rhodesia, Bulawayo (*Eyles*), 1 ♀; Mozambique, 2 ♂. *Exp.* 42–58 millim.

Eminaria nigropuncta. Beth.-Baker. A. M. N. H. (8) ii. p. 262 (1908).

A form with the black points of fore wing much reduced: vein 10 shortly stalked with 7, 8, 9 on right side, from angle of cell on left side.

Uganda, Acholi Co., Patiga, type † ♀ in Coll. Bethune-Baker.

1734. **Spilosoma lutea.** insert :—

ab. *eboraci*. Tugwell. Entom. xxvii. p. 205. fig. 2 (1894).

Fore wing with black streaks on medial part of costa and inner margin.

ab. *fasciata*, Tugwell, Entom. xxvii. p. 205, fig. 4 (1894).

Fore wing with curved black postmedial band.

ab. *intermedia*, Standf. Handb. Gr.-Schm. p. 306. pl. 8. ff. 11. 12 (1896).

Fore and hind wings with streaks in the interspaces of terminal area.

ab. *unicolor*, Homberg, Bull. Soc. Ent. Fr. 1907, p. 71.

♀. Fore wing with black point at base of costa only; hind wing without markings.

ab. *totinigra*, Seitz, Gr.-Schm. pal. ii. p. 85, pl. 15 *a* (1910).

Similar to ab. *zatima*, but fore wing with the buff markings further reduced.

ab. *fasciata*. Dufrane, Rev. Soc. Ent. Namur, 1907. p. 50.

ab. *paupera*, Hffm. Int. Ent. Zeit. v. p. 227 (1911).

Typical except that the hind wing has no black point on upper side.

Spilosoma rhodosoma, Turati, Nat. Sicil. xx. p. 38, pl. iii. ff. 10–13, & v. ff. 16, 17 (1907); Seitz, Gr.-Schm. pal. ii. p. 85. pl. 15 *b*.

A form with the 1st joint of palpi, a slight line behind the eyes, the pectus at sides, the fore coxæ and femora, and the abdomen above crimson. Fore wing with antemedial black spot on costa produced as a black streak on costal edge to base and series of small spots angled outwards on median nervure; a black point at upper angle of cell; a postmedial black spot on costa with obsolescent band from it excurved to vein 5, then oblique with slight black points on it between veins 5 and 2 and two spots above inner margin, met at vein 6 by an oblique series of points from apex; an oblique subterminal series of points between veins 5 and 3. Hind wing with black spot at upper angle of cell and subterminal spot on vein 2. Underside with slight crimson suffusion at base; fore wing with black streak on base of costa, oblique discoidal lunule, postmedial spot above vein 6, and oblique maculate band from above 5 to vein 2, where it is met by a streak below vein 2 from before middle.

Hab. Sicily, cotype † ♂ in Coll. Püngeler, Busambra, 1 ♂.

Subsp. *japonica*, Roths. Nov. Zool. xvii. p. 131 (1910).

Similar but paler yellow: fore wing with the antemedial black spot on costa, the point at upper angle of cell, the oblique series of points from apex, and the obsolescent band with two black spots above inner margin; the underside without the black streak below vein 2.

Hab. E. Siberia, Ussuri, Kasakewitsch in Coll. Püngeler; Japan, Yokohama, type † ♂ in Coll. Rothschild.

1736. Spilosoma fuscitincta.

Larva. Piepers, Tijd. v. Ent. xlviii. p. 183.

Black, the four anterior somites bright orange; thickly clothed with long black hair mixed with a few white hairs.

1737. Spilosoma mona, insert :—

Spilarctia bifascia, Hmpsn. Ill. Het. B.M. viii. p. 55. pl. 140. f. 21 (1891).

which is the male of it.

Nilgiris, Travancore, Pirmád.

*1737 *a*. Spilosoma ruficosta.

Diacrisia ruficosta, Joicey, Trans. Ent. Soc. 1916. p. 374, pl. 61, f. 2.

♂. Head and thorax ochreous tinged with rufous, the dorsum of thorax with black stripe; antennæ, sides of frons, and palpi black; pectus with some orange below the wings; fore and mid legs, the extremities of hind tibiæ and the tarsi black; abdomen orange, the anal tuft and ventral surface ochreous white, lateral series of black spots except at base, and sublateral spots on three medial segments. Fore wing ochreous white, the costal edge orange-rufous; an antemedial black spot on costa and indistinct orange-rufous line excurved at median nervure and with small black spots on it above and below vein 1; slight orange-rufous marks at angles of cell and a small black spot at upper angle; postmedial line orange-rufous with black spots on it below costa and vein 7, minute spots above and below veins 4 and 3 and above 2 and larger spots above and below vein 1, excurved below costa and incurved below vein 4, black spots beyond it below costa and veins 8 and 7; an oblique series of black spots from costa just before apex to inner margin just beyond the postmedial line to which it is approximated below vein 4, the spots between discal and submedian folds fainter and fuscous; minute subterminal black spots above and below veins 5 and 4 and above 3, and a spot at tornus. Hind wing ochreous white, the inner area suffused with orange; a black spot on upper discocellular, and subterminal spots above and below veins 5 and 2 and above tornus. Underside of fore wing with the costa, cell, and area below the cell and vein 2 orange, a black discoidal bar, the oblique series of spots forming a maculate black band between discal and submedian folds; hind wing with the costal area orange, narrowing to apex.

Hab. Dutch N. Guinea, Arfak Mts., Angi Lakes (*Pratt*), type † ♂ in Coll. Joicey. *Exp.* 60 millim.

1737 *b*. Spilosoma biagi. (Plate LVIII. fig. 19.)

Diacrisia biagi, Beth.-Baker, Nov. Zool. xv. p. 190 (1908).
Diacrisia biagi form *angiana*, Joicey, Trans. Ent. Soc. 1916, p. 375, pl. 61, f. 3.

♂. Head and thorax greyish brown, the vertex of head and dorsal part of tegulæ rufous, the dorsum of thorax with broad black fascia; palpi and frons black; antennæ with the basal half of shaft whitish; pectus and legs black-brown with reddish yellow horse-shoe mark on pectus in front; abdomen yellow with dorsal series of black spots and broad black lateral stripes except at extremity. Fore wing yellow suffused with red-brown leaving the veins yellow; two black points at base; a subbasal black point below costa, two above median nervure and one above vein 1; four antemedial elongate black spots from costa to below the cell with a small spot beyond them above base of vein 2, and two obliquely placed spots above inner margin; two wedge-shaped spots in end

of cell; two postmedial series of spots, the inner series bent inwards to costa and with the spots above and below vein 2 minute, the outer series with the spots small except towards costa and inner margin; a subterminal series of minute spots on each side of the veins except vein 2, bent outwards at vein 5; all the spots edged with yellow. Hind wing brownish yellow; a large black discoidal spot; postmedial spots between veins 5 and 2 and below 1 and some points towards costa; a subterminal series of spots with minute streaks beyond it from costa to vein 3.

ab. 1. *angiana*. Both wings with the black spots reduced.

Hab. Dutch N. Guinea, Arfak Mts., Ninay Valley (*Pratt*), 1 ♂, Angi Lakes (*Pratt*), 1 ♂, type † ♂ *angiana* in Coll. Joicey; Br. N. Guinea, Biagi, Mambare (*Meek*), 2 ♂. *Exp.* 50 millim. Type † in Coll. Bethune-Baker.

*1737 *c.* Spilosoma nigricornis. (Plate LXX. fig. 13.)

Diacrisia nigricorna, Joicey & Talbot, A. M. N. H. (8) xvii. p. 84 (1916).

♂. Head and thorax ochreous yellow, the latter with a large black dorsal patch; antennæ, frons, palpi, pectus, and legs black, the fore coxæ with tuft of yellow hair, the hind tibiæ fringed with yellow hair above towards base; abdomen orange with dorsal black streak, the ventral surface white with lateral and sublateral maculate black stripes, the latter not reaching the extremity. Fore wing ochreous yellow tinged with pale brown: the costal edge black towards base; small black basal spots below costa and at vein 1; minute obliquely placed antemedial black spots below the cell and above vein 1; two almost conjoined black spots in angles of cell, a point beyond lower angle and on one side a point beyond upper angle; two oblique postmedial series of black spots, the inner series commencing with a small spot below vein 6, triangular spots below veins 5 and 4, a spot below vein 3, and spots above and below veins 2 and 1, the outer series with spots above and below vein 7, above 6, above and below veins 5, 4, 3, conjoined in the interspaces and above and below veins 2 and 1; a small subterminal spot below apex and spots above and below veins 7 to 3; slight terminal points above and below vein 5 and a minute spot above vein 1. Hind wing ochreous yellow; a large black discoidal spot and small subterminal spots above and below veins 5, 2, 1. Underside of fore wing with discoidal lunulate black spot conjoined to a spot beyond the cell, the postmedial and subterminal spots as on upper side.

Hab. Dutch N. Guinea, Wandammen Mts. (*Pratt*), type † ♂ in Coll. Joicey. *Exp.* 50 millim. This may be an aberration of *S. biagi*.

1739. Spilosoma scioana, insert :—

subsp. *tuleusa*, Roths. Nov. Zool. xvii. p. 130, pl. 14. f. 21 (1910).

♂. Fore wing with the spots reduced.

♀. Head, thorax, and fore wing strongly tinged with rufous; hind wing deep buff.

Hab. Angola, Bihé, Chisamba, Cambo Caquenje (*Ansorge*), type † ♀ in Coll. Rothschild, Pedreira.

1739*a*. Spilosoma geminipuncta. (Plate LVIII. fig. 20.)

Diacrisia geminipuncta, Hmpsn. Nov. Zool. xxiii. p. 235 (1916).

♂. Head and thorax ochreous, the tegulæ and shoulders with black spots, the patagia and prothorax with short black streaks; antennæ black; palpi with black spot on 1st joint, the 2nd and 3rd black at sides; fore coxæ with blackish patches, the fore femora and fore and mid tibiæ striped with black, the hind tibiæ with black spots at base and near extremity, the tarsi black ringed with ochreous white; abdomen ochreous white with dorsal, lateral, and sublateral series of black spots. Fore wing ochreous; a black point at base of cell; rather elongate subbasal spots on costa and below the cell, a small spot above vein 1 and spot nearer the base on vein 1; antemedial spots on costa, in cell, above vein 1 and on inner margin; a similar series of medial spots, the spots below the cell and on inner margin rather elongate; a spot on costa above end of cell, spots in and beyond upper angle, points in lower angle and beyond it above and below vein 3, points above and below median nervure near origin of vein 2, and small spots above and below vein 2 and above vein 1; a wedge-shaped postmedial black mark on costa with point below it, and spots or points above and below veins 5, 4, 2, and 1; an oblique subterminal maculate bar from costa near apex, small spots above and below veins 6, 5, 4, 3, and 1 and a spot above vein 2, the spots at vein 5 nearer the termen; a terminal series of small spots. Hind wing ochreous white; the underside with small medial and postmedial spots above and below vein 8 and a slight subterminal spot below vein 2.

Hab. Abyssinia (*Drake-Brockman*). 1 ♂ type. *Exp.* 44 millim.

*1742*a*. Spilosoma cannegieteri.

Diacrisia kannegieteri, Roths. Nov. Zool. xvii. p. 132 (1910). & xviii. pl. 4. f. 26.

♀. Head and thorax pale yellow, the metathorax with some fuscous hairs; palpi black above; antennæ black; abdomen yellow with dorsal and lateral series of blackish spots. Fore wing yellow; a fuscous brown streak on base of costa; a broad fuscous brown antemedial band with slightly waved edges, oblique below the cell; a small round spot at upper angle of cell; a broad fuscous brown postmedial band with slightly waved edges, excurved to vein 4, then incurved. Hind wing pale yellow; a dark discoidal point; an oblique maculate postmedial fuscous line from vein 5 to submedian fold.

Hab. Nias, Hili Madjedja (*Kannegieter*), type † ♀ in Coll. Rothschild. *Exp.* 40 millim.

1742 *b*. Spilosoma venosa.

Carbisa venosa, Moore, Lep. Atk. p. 41, pl. 2. f. 10 (1879); Hmpsn. Moths Ind. ii. p. 13.
Diacrisia pseudomænas. Roths. Nov. Zool. xvii. p. 131 (1910), & xviii. pl. 4. f. 9.

♂. Head white tinged with yellow; palpi fuscous towards tips; antennæ black, the shaft white above; thorax fulvous yellow; legs whitish, the fore coxæ, femora, and tibiæ streaked with black in front, the mid and hind femora with black spot at extremity; abdomen fulvous yellow with blackish bands, the ventral surface whitish. Fore wing buff, the interspaces pale fuscous brown except at termen: a small blackish subbasal spot above inner margin. Hind wing pale buff; four small brownish subterminal spots between apex and vein 4 and two towards tornus.

♀. Head, thorax, and abdomen whiter, the last with the bands blacker and with large orange-yellow anal tuft.

Hab. Sikkim; Assam, Shillong (*Parish*), 10 ♂, 1 ♀. *Exp.*, ♂ 36, ♂ 44 millim.

Larva. Blackish, hairy; forms a social web in leaf of *Brassaiopsis speciosa* (*Araliaceæ*) spun up round the web and pupates in the nest, which is much affected by a small red ant; the larvæ are nocturnal feeders, their hairs being poisonous (*H. M. Parish*).

1742 *c*. Spilosoma neurica. (Plate LVIII. fig. 21.)

Mænas venosa, Hmpsn. Cat. Lep. Phal. B.M. iii. p. 251 (nec Moore).
Diacrisia neurica, Roths. A. M. N. H. (8) viii. p. 408 (1911).

*1742 *d*. Spilosoma nigrescens. (Plate LVIII. fig. 22.)

Diacrisia eximia, nigrescens, Roths. Nov. Zool. xvii. p. 143 (1910).

♂. Head and tegulæ crimson, the latter with pair of fuscous dorsal spots; palpi black at tips; antennæ black; thorax black-brown; pectus and fore coxæ crimson; legs blackish streaked with crimson; abdomen crimson with dorsal and lateral series of black spots. Fore wing black-brown with slight antemedial crimson streaks in cell and submedian fold and minute streaks at angles of cell. Hind wing black-brown with a slight crimson patch at base; the underside with slight ochreous mark on costa at middle.

Hab. Sikkim; Assam, Khásis, type ♂ in Coll. Rothschild. *Exp.* 26 millim.

*1743 *a*. Spilosoma everetti.

Diacrisia everetti, Roths. Nov. Zool. xvii. p. 132 (1910), & xviii. pl. 4. f. 27.

♂. Head, thorax, and abdomen orange-yellow; palpi black above; antennæ black; legs streaked with black. Fore wing orange-yellow; two small obliquely placed medial fuscous spots

below costa and two above inner margin; a postmedial series of small fuscous spots from costa to above vein 1, strongly incurved below vein 5. Hind wing pale yellow.

Hab. Flores (*Everett*), type † ♂ in Coll. Rothschild. *Exp.* 26 millim.

*1743 *b*. Spilosoma pseudolutea.

Diacrisia pseudolutea, Roths. Nov. Zool. xvii. p. 134 (1910), & xviii. pl. 4. f. 23.

♂. Head, tegulæ, and patagia bright yellow, the dorsum of thorax pale yellow; palpi black above; antennæ black; legs black and yellow; abdomen orange-yellow with dorsal and lateral series of black spots, the ventral surface pale yellow. Fore wing bright yellow; a curved antemedial series of fuscous spots from subcostal nervure to inner margin; a small fuscous spot at upper angle of cell; an oblique series of fuscous spots from apex to middle of inner margin near the antemedial series, the spots towards apex and the spot below vein 2 elongate; paired subterminal minute fuscous streaks on each side of veins 5 to 3 and a pair at vein 1. Hind wing pale yellow; a small black spot at upper angle of cell; a subterminal point at discal fold, minute point below vein 5 and an oblique series of small spots from above vein 2 to termen at vein 1.

Hab. Japan, type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

*1743 *c*. Spilosoma pilosa.

Diacrisia pilosa, Roths. Nov. Zool. xvii. p. 132 (1910), & xviii. pl. 4. f. 10.

♂. Head and thorax pale yellow, the upper part of frons and tegulæ more fulvous yellow; palpi black above; frons black at sides; antennæ with the shaft white, the branches black; fore femora and tibiæ black on inner side, the mid femora black at extremities; abdomen orange-yellow, the ventral surface pale yellow, lateral series of black spots except at base. Fore wing uniform pale yellow. Hind wing white tinged with yellow.

Hab. Assam, Khásis, type † ♂ in Coll. Rothschild. *Exp.* 36 millim.

1743 *d*. Spilosoma metaleuca. (Plate LIX. fig. 1.)

Diacrisia metaleuca, Hmpsn. A. M. N. H. (7) xv. p. 447 (1905).

Head and thorax orange-yellow; abdomen orange-yellow, white at base and with ill-defined dorsal fuscous bands. Fore wing uniform orange-yellow. Hind wing pure white.

Hab. S. Nigeria, Anambra, 1 ♂ type; N. Nigeria, Kano (*R. G. Brown*), 1 ♀; Sudan, White Nile, Roseira (*Longstaff*), 1 ♂. *Exp.*, ♂ 28, ♀ 36 millim.

*1744 *a*. Spilosoma vialis.

Diacrisia vialis, Oberth. Ét. Lép. Comp. v. i. p. 337, pl. lxxxiii. f. 787 (1911).

♂. Head and thorax yellow, the tegulæ at sides, patagia at tips and metathorax with some scarlet; antennæ black; abdomen crimson with dorsal and lateral series of black spots, the base with some whitish hairs. Fore wing yellow with oblique series of fuscous spots from above vein 5 beyond the cell to above middle of vein 1, the spots below veins 3 and 2 longer. Hind wing creamy white; the underside with the costal area yellow.

Hab. W. China, Ta-chien-lu. *Exp.* 40 millim. This species is unknown to me.

*1746 *a*. Spilosoma ignivagans. (Plate LXVI. fig. 15.)

Spilosoma ignivagans, Roths. A. M. N. H. (9) iii. p. 487 (1919).

♂. Head and thorax scarlet, a blackish spot at middle of patagia, and the dorsum of meso- and metathorax dark grey-brown, the antennæ with the shaft grey, the branches black, the lower part of frons and palpi dark reddish brown; abdomen dark greyish brown, the three terminal segments scarlet with a wedge-shaped black spot followed by a pair of points; pectus and fore legs dark brown, the mid and hind legs brownish grey; ventral surface of abdomen brownish white with lateral and sublateral series of black-brown spots. Fore wing grey-brown, the veins scarlet: a scarlet streak below costa from near base to towards apex and a slight streak in submedian fold from base to well beyond middle; a scarlet and yellow patch below base of cell, the inner margin below it yellow; a small scarlet medial spot in upper part of cell and scarlet and yellow band from cell to above inner margin, angled outwards at submedian fold and vein 1; a dentate scarlet and yellow band from cell to vein 1, conjoined at submedian fold to the antemedial line; a lunulate scarlet spot in upper part of cell towards extremity and slight streak in end of cell; a scarlet and yellow spot beyond upper angle of cell and narrow irregular postmedial band from vein 4 to above inner margin, incurved below vein 3, just below which it includes a small spot of the ground-colour; a scarlet and yellow subterminal striga below vein 7 and slight spot in submedian fold; the scarlet on the veins tending to form slight terminal spots. Hind wing grey-brown, the veins whitish except on inner area; an irregular interrupted white subterminal line from above vein 6 to tornus, excurved at middle; a terminal series of small white spots on veins 6 to 2 with the cilia white beyond them, the spot at vein 2 produced inwards as a short streak. Underside grey-brown; fore wing with a small white spot beyond upper angle of cell and subterminal striga below vein 7; hind wing with white spot above end of cell and slight spot at middle of submedian fold, the subterminal line as above.

Hab. Yunnan, Tali, type ♂ in Coll. Rothschild. *Exp.* 56 millim.

*1747 *a*. Spilosoma ypsilon.

Mænas ypsilon, Roths. Nov. Zool. xvii. p. 117. pl. 14. f. 39 (1910).

♂. Head and thorax ochreous white, the tegulæ crimson at tips; palpi black, crimson at base; sides of frons black; antennæ brown; pectus crimson in front; the fore tibiæ and the tarsi brown; abdomen yellow with some ochreous white hair at base and the ventral surface white, dorsal and sublateral series of small black spots. Fore wing ochreous white; the costa blackish to the oblique antemedial series of four small brown spots; an oblique series of three elongate brown spots from middle of costa to median nervure at end of cell where it joins the postmedial maculate brown band which is excurved to vein 4, then incurved, the spots elongate towards inner margin where it touches the antemedial series. Hind wing white.

Hab. Penang; W. Java, Mons Gedé (*Fruhstorfer*), type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

*1747 *b*. Spilosoma burmanica.

Diacrisia burmanica, Roths. Nov. Zool. xvii. p. 121, pl. 14. f. 41 (1910).

♂. Head and thorax ochreous white, the tegulæ crimson; palpi, sides of frons, and antennæ black; pectus crimson in front; tibiæ and tarsi blackish; abdomen pale crimson, the ventral surface white, dorsal, lateral, and sublateral series of black points. Fore wing white, the costa and inner margin tinged with ochreous; a short subbasal black streak on costa; antemedial and postmedial maculate fuscous bands, the former slightly curved, the latter bent inwards to costa and incurved below vein 4, black points beyond it above and below veins 5 and 1. Hind wing semihyaline white, the inner area slightly tinged with yellow; a small subterminal blackish spot below vein 2.

Hab. Burma, type † ♂ in Coll. Rothschild. *Exp.* 38 millim.

*1747 *c*. Spilosoma gianellii.

Diacrisia gianellii, Oberth. Ét. Lép. Comp. v. i. p. 336, pl. lxxxii. f. 774 (1911); Seitz, Gr.-Schm. pal. ii. p. 446, pl 56 *i*.

♀. Head and thorax pale flesh red; antennæ black; abdomen scarlet with dorsal series of black bars and lateral series of spots. Fore wing pale flesh red slightly irrorated with fuscous; an antemedial black band, excurved from below costa to above inner margin where it expands into rather elongate spots; a medial maculate black band, excurved to just beyond end of cell, then incurved; minute subterminal black streaks above and below veins 8 to 3. Hind wing pale red with black discoidal spot and minute subterminal spots at discal fold and below vein 2.

Hab. W. China, Tse-kou. *Exp.* 48 millim. This species is unknown to me.

1748 *a*. Spilosoma obliquizonata. (Plate LIX. fig. 2.)

Diacrisia obliquizonata, Miyake, Journ. Coll. Agric. Tokio, ii. p. 209 (1910).

Spilarctia obliquefasciata, Mats. Thousand Ins. Jap., Suppl. iii. p. 72. pl. xxxv. f. 27 (1911).

♂. Head and thorax creamy white; antennæ black; sides of frons and palpi black, the latter with crimson spot on basal joint; stripes below shoulders and pectus in front black-brown, some crimson below the wings; fore legs black, the coxæ at sides and femora above crimson, the mid and hind femora crimson above, the mid tibiæ above, the hind tibiæ above except towards extremities, and the tarsi black; abdomen pale crimson, the base and ventral surface creamy white, dorsal, lateral, and sublateral series of small black spots. Fore wing creamy white; a black fascia on costa to near middle; a small antemedial black spot below the costa and a spot above vein 1; a black fascia on medial part of inner margin joining an oblique maculate band from the apex interrupted by creamy white streaks on the veins; an elongate postmedial black spot on costa; a minute subterminal black spot below vein 5. Hind wing creamy white; a small blackish spot on upper discocellular; small subterminal spots above and below vein 5 and above vein 2 and a large spot below vein 2. Underside of fore wing with the retinaculum black and a small black discoidal spot.

Hab. Japan (*Niwa*), 1 ♂, Tokio, in Coll. Wileman. *Exp.* 50 millim.

Larva. Young: head black; body fulvous; tubercles black; hairs rather short, white mixed with black. Adult: head black; body blackish, thoracic somites with black hairs; 1st three abdominal somites with fulvous hairs, the remaining somites laterally with fulvous hairs, dorsally and ventrally with black hairs; the thoracic and anal somites with some long white hairs; tubercles purplish black. Food-plant, mulberry.

*1748 *b*. Spilosoma quercii.

Estigmene quercii, Oberth. Ét. Lep. Comp. v. i. p. 336. pl. lxxxii. f. 773 (1911).

♀. Head and thorax ochreous, the dorsum of thorax with broad black stripe, antennæ black; abdomen scarlet with dorsal series of diffused black bars and lateral series of spots, the ventral surface ochreous. Fore wing ochreous: a black point at base of cell and black fascia on costa to before middle with streak below its extremity; a minute spot at middle of costa and point at upper angle of cell; a black fascia on inner margin from near base to near tornus, with elongate black antemedial mark above it, its outer edge conjoined to an oblique maculate band from apex; minute subterminal streaks above and below veins 5 and 4 and above 3; the cilia with series of small black spots. Hind wing pale ochreous; black spots in cell and on discocellulars; a small subterminal spot in discal fold and spots above and below vein 1; cilia black at apex; the underside with antemedial black spot on costa.

Hab. W. China, Siao-lu. *Exp.* 66 millim. This species is unknown to me.

1754. Spilosoma inæqualis.

Larva. Miyake, Journ. Coll. Agric. Tokio, ii. p. 210.

Head reddish ochreous; body dorsally dark brown with a slight purplish tinge, laterally ochreous mottled with brown; cervical shield metallic blue-green; dorsal and subdorsal tubercles metallic-blue, lateral, subspiracular, and ventral tubercles ochreous; each tubercle with black and white hairs, the tubercles of 4th to 9th somites with brown hairs mixed. Food-plant, mulberry.

*1755 *a*. Spilosoma javana. (Plate LIX. fig. 3.)

Diacrisia javana, Roths. Nov. Zool. xvii. p. 137 (1910).

♂. Head and thorax brownish ochreous; palpi and sides of frons black-brown, the former with some ochreous at base; antennæ ochreous, the branches brown; tibiæ and tarsi suffused with brown; abdomen orange-yellow, the ventral surface ochreous, small dorsal black spots on four medial segments and a lateral series except towards base. Fore wing brownish ochreous; an antemedial black point above vein 1; a postmedial series of black points on each side of the veins, minute and obsolescent towards costa and very oblique below vein 4; subterminal black points on each side of veins 7 to 3 and some minute points at middle of termen. Hind wing ochreous white; a black discoidal spot; a subterminal spot at discal fold, obsolescent band from veins 3 to 1, and blackish spot below vein 1; the underside with the subterminal maculate black band not obsolescent and with some points between it and discal fold and towards costa.

Hab. Java, type † ♂ in Coll. Rothschild. *Exp.* 42 millim.

1755 *b*. Spilosoma procedra. (Plate LIX. fig. 4.)

Diacrisia procedra, Swinh. A. M. N. H. (7) xx. p. 75 (1907).
Diacrisia hosei, Roths. Nov. Zool. xvii. p. 137 (1910).

♂. Head ochreous white; palpi black with some yellow at base; sides of frons black; antennæ black except basal joint; thorax pale brownish ochreous; pectus and legs ochreous white, the legs streaked with fuscous, the tarsi fuscous; abdomen orange-yellow, the ventral surface creamy white, dorsal, lateral, and sublateral series of small black spots except towards base. Fore wing pale brownish ochreous; a small black spot at base; an antemedial spot on costa and obliquely placed spots above and below vein 1; a black point in upper angle of cell with small spot above it on costa; postmedial points below vein 3 and above 2 and small spots above and below vein 1; subterminal points below veins 6 and 4. Hind wing creamy white, the inner area tinged with yellow; a black discoidal spot; small subterminal spots above and below vein 5 and four larger spots between vein 3 and tornus.

ab. 1. *hosei*. Fore wing without the postmedial points below vein 3 and above 2 and with subterminal points below vein 7 and above and below veins 6, 4, 3.

Hab. Selangor (*Holman Hunt*), 1 ♂; Sumatra, Padang, 1 ♂ type; Borneo, Mt. Mulu (*Hose*), type † ♂ *hosei* in Coll. Rothschild. *Exp.* 42 millim.

*1755 *c*. Spilosoma semperi.

Diacrisia semperi, Roths. Nov. Zool. xvii. p. 150 (1910), & xviii. pl. 3. f. 12.

♂. Head and thorax pale fulvous yellow; palpi crimson, black at tips; sides of frons and antennæ black; pectus in front blackish, some blackish and crimson below shoulders; fore coxæ crimson; (legs wanting); abdomen crimson, the ventral surface pale ochreous, lateral series of slight blackish points. Fore wing pale ochreous yellow; small postmedial black spots above and below vein 1. Hind wing yellowish white, the inner area rather yellower; a small black discoidal spot. Underside of fore wing with black discoidal lunule and oblique blackish postmedial striæ from vein 5 to below vein 3; hind wing with the costal area yellower.

Hab. W. Sumatra, Padang Bovenlanden, Mt. Talang, type † ♂ in Coll. Rothschild. *Exp.* 44 millim.

*1755 *d*. Spilosoma roseata.

Diacrisia semperi, roseata, Roths. Nov. Zool. xvii. p. 151 (1910), & xviii. pl. 3. f. 26.
Diacrisia semperi, borneensis, Roths. Nov. Zool. xvii. p. 151 (1910).

♂. Head and thorax pale ochreous; palpi, sides of frons, and antennæ black; pectus black; legs black, ochreous at base, the fore coxæ and the femora above crimson; abdomen crimson, the base, anal tuft, and ventral surface pale ochreous, dorsal, lateral, and sublateral series of black spots. Fore wing pale ochreous; antemedial black points above and below vein 1; a black point in upper angle of cell; a small postmedial black spot below costa, point above vein 2, spot above vein 1, and large spot below it; an oblique series of minute black streaks from apex to vein 6 and subterminal points above and below veins 5 to 3. Hind wing pale ochreous, the inner area tinged with crimson to beyond middle; a black discoidal spot; small subterminal spots below costa and above and below vein 5, and a curved series of larger spots from vein 3 to vein 1. Underside of fore wing with the basal half tinged with crimson, an oblique maculate postmedial black band from discal to submedian folds.

♀. Fore wing with postmedial points below vein 3 and above and below vein 2; hind wing without crimson on inner area, the subterminal spots below costa and vein 5 absent; underside of fore wing with the oblique maculate band slighter.

Hab. N. Borneo, Kina Balu, type † ♀ *borneensis*; Java, type † ♂ in Coll. Rothschild. *Exp.*, ♂ 44, ♀ 54 millim.

*1755 *e*. Spilosoma dohertyi. (Plate LIX. fig. 5.)

Diacrisia dohertyi, Roths. Nov. Zool. xvii. p. 151 (1910).

♂. Head and thorax pale ochreous, the latter with black dorsal fascia; palpi and frons black-brown; antennæ whitish; some crimson hair below base of wings; legs brown, the femora crimson above; abdomen crimson, the ventral surface ochreous, dorsal and lateral series of black spots. Fore wing pale ochreous faintly tinged with rufous; a black point at base; an antemedial black streak on costa, an oblique series of minute streaks from it to below median nervure, and spots above and below vein 1; a postmedial spot on costa and oblique series of spots from vein 4 to inner margin, the spot on which is larger; a subterminal series of black points from costa to vein 3, bent outwards at discal fold, and minute streak above vein 1. Hind wing pale ochreous, the inner area faintly tinged with crimson; a blackish spot on upper discocellular and small subterminal spots on costa, at discal fold, above and below vein 2, and at vein 1. Underside of fore wing with the costal area and basal half except the submedian interspace tinged with crimson.

Hab. Celebes, Palos Bay, Tawaya (*Doherty*), type † ♂ in Coll. Rothschild. *Exp.* 42 millim.

*1755 *f*. Spilosoma eldorado.

Diacrisia eldorado, Roths. Nov. Zool. xvii. p. 150 (1910), & xviii. pl. 3. ff. 11, 13.

♂. Head and thorax orange-yellow; palpi crimson, black at tips; sides of frons and antennæ black; pectus black in front and with some crimson below the wings; fore coxæ and the femora above crimson, the tibiæ and tarsi black; abdomen crimson, the ventral surface ochreous, dorsal, lateral, and sublateral series of small black spots except at base and extremity. Fore wing orange-yellow; small antemedial black spots below median nervure and above vein 1; an incurved postmedial series of small black spots from vein 3 to inner margin. Hind wing crimson; a black discoidal point; small subterminal black spots above and below veins 5, 2, and 1; cilia yellow. Underside of fore wing with the basal half suffused with crimson, black striæ on each side of discocellulars, and an oblique postmedial series of black spots and points from above vein 6 to below vein 2; hind wing ochreous yellow, the basal half of costal area and inner area suffused with crimson, a black point below base of costa.

♀. Head, thorax, and fore wing ochreous yellow, the last with postmedial black point above vein 1 only; hind wing pale yellow; underside of fore wing with black discoidal spot and postmedial spots above and below vein 5.

Hab. Assam, Khásis, type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 44, ♀ 54 millim. The locality of the specimens from the Felder Coll. labelled Ceylon (*Nietner*) is probably an error.

1755 *g*. **Spilosoma venata.** (Plate LIX. fig. 6.)

Diacrisia venata, Wileman, Entom. xlviii. p. 110 (1915).
Diacrisia venata, ab. *bipuncta*, Wileman, Entom. xlviii. p. 111 (1915).

♂. Head and thorax white; frons with black spot at sides; palpi crimson, the 3rd joint black; antennæ black; neck with crimson ring; tegulæ and patagia edged with crimson, the thorax with crimson dorsal stripe; pectus crimson; legs fuscous, the femora with some whitish hair; abdomen crimson with small dorsal black spots on four median segments, the ventral surface white with lateral series of black spots and sublateral spots on four medial segments. Fore wing buff suffused with scarlet, the veins and streaks in the cell and submedian fold buff; a small antemedial black spot just below costa and spots above and below vein 1; a small postmedial black spot just below costa and an incurved series from vein 3 to above inner margin, the mark above vein 2 linear. Hind wing yellow buff, the termen rather deeper yellow, the inner area tinged with crimson; a small fuscous spot on upper discocellular. Underside of fore wing crimson scarlet; hind wing with the costal and inner areas suffused with crimson, a black spot on upper discocellular.

ab. 1. *bipuncta*. Fore wing with the black reduced to postmedial points above and below vein 1; hind wing without discoidal spot.

Hab. PHILIPPINES, Luzon, Benguet Prov., Baguio (*Baker*), 1 ♂, Pauai (*Wileman*), type ♂ † and type ♂ † *bipuncta* in Coll. Wileman. *Exp.* 54–58 millim.

*1755 *h*. **Spilosoma whiteheadi.** (Plate LIX. fig. 7.)

Diacrisia whiteheadi, Roths. Nov. Zool. xvii. p. 151 (1910).

♂. Head and thorax creamy white, the tegulæ and patagia edged with scarlet, the dorsum of thorax with pale scarlet streak, the patagia with black spots near base; palpi scarlet, the 3rd joint black; frons with lateral black spots; antennæ black except at base; pectus in front and femora above scarlet; fore tibiæ and tarsi streaked with black, the extremities of mid and hind femora and base of tibiæ black; abdomen scarlet, the ventral surface ochreous white, a lateral series of black spots and dorsal and sublateral points on two medial segments. Fore wing buff, the basal half of costal area white; a minute antemedial black point above vein 1 and small postmedial spots above and below vein 1. Hind wing pale buff, the costal and inner areas yellower and the latter faintly tinged with crimson. Underside of fore wing and the costal area of hind wing tinged with scarlet.

Hab. PHILIPPINES, Luzon (*Whitehead*), type † ♂ in Coll. Rothschild. *Exp.* 58 millim.

*1755 *i*. **Spilosoma postrubida.** (Plate LIX. fig. 8.)

Aloa postrubida, Wileman, Entom. xliii. p. 246 (1910).

♀. Head and thorax buff, the prothorax with round black spot,

the metathorax with slight black streak; palpi crimson at base, black at tips; lower part of frons black; antennæ whitish; fore coxæ crimson with black patches in front, the femora crimson above, the tibiæ and tarsi black above; abdomen yellow, the ventral surface buff except at extremity, dorsal, lateral, and sublateral series of black spots except at base and extremity. Fore wing buff, the veins paler; a small black spot at base of cell, antemedial spots above and below vein 1, spots at angles of cell, and postmedial spots above and below veins 2 and 1. Hind wing pale crimson, the base and inner margin buff; a black discoidal spot and subterminal spots below vein 2 and on vein 1 near termen; cilia buff. Underside of fore wing suffused with crimson except the costa and terminal area; hind wing buff, the terminal area tinged with crimson.

Hab. Formosa, Kanshirei (*Wileman*), type † ♀ in Coll. Wileman. *Exp.* 52 millim.

1755 *j*. Spilosoma rhodochroa. (Plate LIX. fig. 9.)

Diacrisia rhodochroa, Hmpsn. Nov. Zool. xxiii. p. 236 (1916).

♂. Head white; palpi deep brown, the basal joint crimson; lower part of frons deep brown; antennæ black; thorax pale flesh pink, the tegulæ crimson below; pectus and legs deep brown, some crimson below base of wings, the fore coxæ with crimson patches, the mid and hind coxæ whitish, the femora crimson above; abdomen deep crimson with dorsal series of black points except at base and lateral and sublateral series, the anal tuft and ventral surface white. Fore wing ochreous tinged with pale flesh pink; a small black spot at base; antemedial spots below costa and above vein 1, and a point below vein 1; a black point at upper angle of cell; a faint diffused brownish postmedial line, excurved to vein 5, then very oblique and with pairs of small black spots on each side of veins 3, 2, 1. Hind wing pale semihyaline flesh-colour, the inner area tinged with crimson; the underside with the costal area tinged with crimson, a black striga on upper discocellular.

Hab. Java, Nongkodjadja (*Cockayne*), 1 ♂ type. *Exp.* 52 millim.

1755 *k*. Spilosoma contaminata. (Plate LIX. fig. 10.)

Aloa contaminata, Wileman, Entom. xliii. p. 247 (1910).

♂. Head and thorax white slightly tinged with buff, the dorsum of thorax with blackish streak; palpi crimson at base, black at tips; lower part of frons and antennæ black; fore coxæ with blackish patches, the femora crimson above, the tibiæ and tarsi black above; abdomen crimson, the ventral surface and tip of anal tuft white, dorsal and lateral series of black spots and sublateral spots on medial segments. Fore wing pale buff, the interspaces except on costal and inner areas almost filled by brown-buff streaks, the costal edge black to near apex. Hind wing buff suffused with crimson except on costal area and base of inner margin; a

small black discoidal spot; ciliæ buff. Underside of fore wing suffused with crimson; hind wing buff slightly tinged with crimson, a subterminal blackish spot below vein 2.

Hab. Formosa, Kanshirei (*Wileman*), 1 ♂, type † ♂ in Coll. Wileman. *Exp.* 46 millim.

1756. **Spilosoma obliqua**, insert (syn.):—

Diacrisia assamensis, Roths. Nov. Zool. xvii. p. 136 (1910), ♀ nec ♂.

Abdomen orange; fore wing without black streak.

Assam, Khásis.

Diacrisia subtestacea, Roths. Nov. Zool. xvii. p. 137 (1910).

Formosa, Fansako, type † ♂ in Coll. Rothschild=ab. *dalbergiæ* and del. *Spilaretia bifascia*.

1759. **Spilosoma multiguttata**, insert:—

Diacrisia pallidior, Roths. Nov. Zool. xvii. p. 138 (1910).

A large form with heavily spotted fore wing from Bhután and Sikhim, type † ♂ in Coll. Rothschild.

Diacrisia major, Roths. Nov. Zool. xvii. p. 138 (1910), & xviii. pl. 4. f. 27.

Similar to *pallidior* but with the head and tegulæ orange, a large black patch on anal segment of abdomen; hind wing bright orange.

Assam, Khásis, Silhet, type † ♂ in Coll. Rothschild.

*1760 *a*. **Spilosoma inconspicua**. (Plate LIX. fig. 11.)

Diacrisia inconspicua, Roths. Nov. Zool. xvii. p. 131 (1910).

♂. Head and thorax ochreous white, the tegulæ and patagia with black points; palpi black at sides except at base; antennæ blackish except basal joint; (fore legs wanting); mid tibiæ and tarsi tinged with fuscous; abdomen orange-yellow with dorsal series of small black spots except at base and extremity and lateral spots on two medial segments. Fore wing ochreous white; an oblique subbasal black striga from costa and antemedial point below median nervure; medial black points on costa, below subcostal nervure, and above and below vein 1; four black points at lower angle of cell; a curved postmedial series of black points on each side of the veins from costa to vein 3. Hind wing yellow with small black discoidal spot.

Hab. "Germ. E. Africa," Kilwa (*Reimer*), type † ♂ in Coll. Rothschild; Br. C. Africa, Zomba; Angola, Canhoca. *Exp.* 30 millim.

1761 *a*. **Spilosoma hypogopa**. (Plate LIX. fig. 12.)

Diacrisia hypogopa, Hmpsn. A. M. N. H. (7) xix. p. 235 (1907).

♀. Head and thorax pale ochreous, the vertex of thorax with black streak; palpi black, the 1st joint orange; frons black;

femora crimson above, the fore and mid tibiæ fuscous, the hind tibiæ streaked with fuscous, the tarsi fuscous; abdomen orange with dorsal and lateral series of black spots, the ventral surface ochreous with sublateral series of black points except on basal segments. Fore wing ochreous; a black point at base; an antemedial oblique series of small elongate black spots from costa to median nervure and spots on area above and below vein 1; a point at upper angle of cell with oblique spot from costa above it and a point just beyond lower angle; traces of an oblique postmedial line with black point below vein 4 just beyond lower angle of cell, points above and below veins 3 and 2 and spots above and below vein 1, the spot on inner margin slightly confluent with the antemedial spot; an oblique series of black points from costa near apex above and below veins 8, 7, 6 and points near termen above and below veins 5 and 4. Hind wing pale yellow; a black discoidal spot and subterminal series of spots above and below veins 7, 5, 2 and on vein 1; cilia white.

Hab. Singapore (*Ridley*), 1 ♀ type. *Exp.* 56 millim.

1761 *b*. Spilosoma vandepolli.

Diacrisia fuscitincta, Hmpsn. Cat. Lep. Phal. B.M. iii. p. 280, ♀ nec ♂.
Diacrisia vandepolli, Roths. Nov. Zool. xvii. p. 155, pl. 14. ff. 11, 34 (1910).

Head and thorax yellow-buff with black stripe on dorsum of thorax; palpi and lower part of frons blackish; antennæ with the shaft whitish; pectus and legs orange, the extremities of femora, the tibiæ and tarsi blackish; abdomen orange with dorsal, lateral, and sublateral series of black spots. Fore wing orange-yellow, the terminal area broadly suffused with brown leaving the veins yellow; a curved antemedial series of black spots, the two spots below costa elongate; a black point at upper angle of cell; a postmedial series of black spots, excurved and obsolescent from below costa to vein 4, then oblique. Hind wing orange-yellow; a black discoidal spot; a subterminal spot in discal fold, a small spot above vein 2 and larger spot below it and spots near termen above and below vein 1. Underside of fore wing with the postmedial series of spots almost obsolete and with small spot beyond it below vein 2.

Hab. Sumatra, Padang. 1 ♀; Java (*Kirkpatrick*), 1 ♂, Batang Proepoe, Padang Bovenlanden, type † ♂ *vandepolli* in Coll. Rothschild. *Exp.*, ♂ 38, ♀ 54 millim.

Larva. Piepers, Tijd. v. Ent. xlviii. p. 183.

Four anterior segments orange, the others black; hairs long, black and serrate with some white hairs among them. Food-plant, fern.

*1764 *a*. Spilosoma pellucida.

Diacrisia pellucida, Roths. Nov. Zool. xvii. p. 154 (1904), & xviii. pl. 3. f. 32.

♂. Head and thorax ochreous with a fulvous tinge; antennæ with the branches brown; abdomen pale yellow with a fulvous

tinge. Fore wing hyaline, the veins, costal and inner areas brownish ochreous; a small round black discoidal spot. Hind wing hyaline, the veins, costal and inner areas, and the termen ochreous.

Hab. Gold Coast, Warsaw Distr. Sekondi, type† ♂ in Coll. Rothschild. *Exp.* 38 millim.

1765 *a*. Spilosoma holoxantha. (Plate LIX. fig. 13.)

Diacrisia holoxantha, Hmpsn. A. M. N. H. (7) xix. p. 236 (1907).

♀. Head and thorax brownish orange; palpi black at tips; fore and mid tibiæ black, hind tibiæ black at base and extremity, the tarsi black; abdomen bright orange with dorsal, lateral, and sublateral series of black points. Fore wing uniform brownish orange. Hind wing orange-yellow. Underside of both wings with blackish discoidal points and terminal points above and below vein 5.

Hab. S. Nigeria, Old Calabar (*Sampson*), 1 ♀ type. *Exp.* 44 millim.

1766. Spilosoma lucida, insert (syn.) :—

Spilosoma steudeli, Bartel, Iris, xvi. p. 184 (1903); Grünb. Berl. Ent. Zeit. lii. p. 67 (1907).

1766 *a*. Spilosoma pulverea. (Plate LIX. fig. 14.)

Diacrisia pulverea, Hmpsn. A. M. N. H. (7) xv. p. 447 (1905).

♀. Head and thorax orange-yellow, palpi, frons, antennæ, tibiæ, and tarsi fuscous black; abdomen orange, dorsal and lateral series of black spots on 1st and terminal segments. Fore wing orange-yellow finely powdered with brown scales. Hind wing orange-yellow.

Hab. Paraguay, Sapucay (*Foster*), 2 ♀ type. *Exp.* 38–42 millim.

1767. Spilosoma flava, insert (syn.) :—

Diacrisia oriens, Roths. Nov. Zool. xxiv. p. 482 (1917).

S.W. Africa, Tsumei, type† ♂, ♀ in Coll. Rothschild.

Larva. Fawcett, Trans. Zool. Soc. xv. p. 316, pl. xlix. f. 8 (1900).

Pale fuscous; dorsal area red-brown; a dorsal series of white spots defined by black; tubercles black with tufts of black and reddish hair; head, legs, and claspers ferruginous. Food-plants: *Ornithogalum eckloni, Lilium*, etc. 12.

1767 *a*. Spilosoma sulphurea. (Plate LIX. fig. 15.)

Spilosoma sulphurea, Bartel, Iris, xvi. p. 189 (1903).

♂. Head and thorax bright yellow; antennæ brownish, the shaft whitish above; palpi at sides, tibiæ and tarsi brown, the femora orange above; abdomen orange, yellow at base, 3rd–5th segments with dorsal black spots, a lateral series of black spots,

ventral surface pale yellow. Fore wing uniform bright yellow. Hind wing yellowish white; the underside with the costal area yellow.

Hab. CAMEROONS, cotype † ♂ in Mus. Berlin; BR. E. AFRICA, N. Kavirondo, Maramas Distr. Hala (*Neave*), 1 ♂; UGANDA, Butiaba (*Neave*), 1 ♂, Ruwenzori (*Wollaston*), 1 ♂. *Exp.* 38–46 millim.

*1767 *b*. Spilosoma pales. (Plate LIX. fig. 16.)

Diacrisia pales, Druce, A. M. N. H. (8) vi. p. 169 (1910).

♂. Head and thorax deep orange, on latter shading to yellow behind; palpi black except at base; antennæ black; fore femora except above and the tibiæ and tarsi black; abdomen orange-yellow with large dorsal black patch except on basal and terminal segments, extending at middle to the lateral line, and a ventral grey patch except on basal and terminal segments. Fore wing uniform yellow. Hind wing pale semihyaline yellow; the underside with the costal area deeper yellow.

Hab. "GERM. E. AFRICA," type † ♂ in Coll. Joicey. *Exp.* 48 millim.

*1767 *c*. Spilosoma atridorsia, n. n. (Plate LIX. fig. 17.)

Amsacta rattrayi, Roths. Nov. Zool. xvii. p. 156 (1910), nec p. 129.

♂. Head and tegulæ orange-yellow; thorax pale yellow tinged with orange in front; palpi black above; antennæ whitish; fore coxæ with blackish patches, the tarsi ringed with blackish; abdomen black, the basal and terminal segments and ventral surface yellow. Fore wing yellowish white, the costa and cilia yellow. Hind wing semihyaline yellowish white, the inner margin yellow; the underside with the costal area yellow.

Hab. UGANDA, Entebbe (*Rattray*), type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

*1767 *d*. Spilosoma baxteri.

Amsacta baxteri, Roths. Nov. Zool. xvii. p. 157 (1910), & xviii. pl. 3. f. 35.

♂. Head and thorax yellow, the head and tegulæ tinged with orange; palpi black above; antennæ black; legs suffused with fuscous; abdomen black, the base, sides of terminal segments, and anal tuft yellow. Fore wing yellow, the costa towards apex and apical half of termen brownish. Hind wing pale yellow.

Hab. "GERM. E. AFRICA," Mpapua (*Baxter*), type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

*1767 *e*. Spilosoma nigrocincta.

Diacrisia nigrocincta, Kenrick, Trans. Ent. Soc. 1913, p. 600, pl. 31. f. 10.

♂. Head and tegulæ pale orange-yellow, the rest of thorax pale ochreous yellow; antennæ, palpi, and legs black; abdomen black,

the base ochreous yellow, the anal tuft and ventral surface orange-yellow with sublateral series of black spots and ventral bands except at extremity. Wings uniform pale ochreous yellow.

Hab. Centr. Madagascar, Nalamagaotna, 2500′ (*Pratt*), type † ♂ in Coll. Kenrick. *Exp.* 50 millim.

1768. **Spilosoma costata**, insert :—

Diacrisia vivida, Roths. Nov. Zool. xvii. p. 139 (1910).

A large deeper buff form; fore wing with the veins more heavily marked with black.

Br. N. Guinea, Dinawa (*Pratt*), 2 ♂, Babooni (*Pratt*), 1 ♀ Mafalu (*Pratt*), 2 ♀; D'Entrecasteaux Is., Ferguson I. *Exp.* ♂ 54, ♀ 62 millim.

1769 *a*. **Spilosoma euryphlebia.** (Plate LIX. fig. 18.)

Diacrisia euryphlebia, Hmpsn. A. M. N. H. (7) xi. p. 351 (1903).

♂. Head and thorax yellowish white; palpi, a patch on frons, tegulæ, patagia, and dorsal stripe on thorax black; pectus and stripes on legs black: mid and hind femora orange above; abdomen orange with dorsal black bands, lateral stripes and ventral series of spots. Fore wing yellowish white; the veins rather broadly striped with black especially the medial part of vein 1; narrow stripes in cell and submedian fold; cilia yellow. Hind wing orange-yellow.

Hab. Zululand (*Crosly*), 1 ♂, Lr. Tugela, 1 ♂ type. *Exp.* 38 millim.

1770. **Spilosoma lutescens**, insert :—

Spilosoma affinis, Bartel, Iris, xvi. p. 185 (1903).

Fore wing pale yellowish with the streaks faint; hind wing semihyaline yellowish white.

Sierra Leone (*Morgan*), 1 ♂; Gold Coast, Kumasi (*Whiteside*), 2 ♂; "Germ. E. Africa," Uhehe, cotype † ♂ in Mus. Berlin.

1770 *a*. **Spilosoma penicillata.** (Plate LX. fig. 1.)

Binna penicillata, Wlk. xxxi. p. 319 (1864).

Is a distinct species; the ground-colour of both wings orange-buff; fore wing with the fuscous streaks in the interspaces typically well developed, often more or less reduced or almost obsolete.

Sierra Leone (*Foxcroft*, *Bartlett*, 1 ♂ type, Port Lokko (*Penny*), 2 ♂; S. Nigeria, Yaba (*Simpson*), 1 ♀. *Exp.*, ♂ 36, ♀ 48 millim.

1770 *b*. **Spilosoma occidens.** (Plate LX. fig. 2.)

Diacrisia occidens, Roths. Nov. Zool. xvii. p. 138 (1910).

♂. Head and thorax ochreous, the vertex of head, tegulæ, and patagia with greenish grey patches, the back of head and tips

of tegulæ orange; palpi above blackish; antennæ brown; legs blackish; abdomen orange with black segmental lines and dorsal band on 2nd segment, the sides fuscous, the ventral surface ochreous. Fore wing uniform ochreous. Hind wing pale ochreous yellow, the inner area rather yellower.

♀. Abdomen with broad black dorsal bands; wings more orange-yellow.

ab. 1. Fore wing with faint greyish fasciæ in the interspaces, often more developed in the female.

Hab. Sierra Leone (*Morgan*, *Bartlett*), 1 ♂, 1 ♀; Gold Coast, Gambaga (*Bury*), type† ♀ in Coll. Rothschild, Kumasi (*Whiteside*, *Sanders*), 2 ♀; S. Nigeria, Old Calabar (*Crompton*, *Dudgeon*), 4 ♂, 1 ♀, Lokoja, Mt. Patti (*Christy*), 1 ♂; Congo, Katanga, Kambovi (*Neave*), 1 ♀. *Exp.*, ♂ 32–44, ♀ 44–56 millim. This may be an aberration of *S. penicillata*.

*1770 *c.* Spilosoma crossi. (Plate LX. fig. 3.)

Diacrisia crossi, Roths. Nov. Zool. xvii. p. 141 (1910).

♂. Head and thorax ochreous tinged with brown; antennæ black-brown; palpi, pectus, and legs dark reddish brown, some yellow hair below shoulders, the femora yellow above; abdomen orange-yellow with brownish dorsal streak except on terminal segments, the ventral surface red-brown. Fore wing ochreous tinged with red-brown. Hind wing pale ochreous yellow, the underside tinged with red-brown except on inner area.

Hab. Gambia, Bathurst; S. Nigeria, Assaba (*Crosse*), type† ♂ in Coll. Rothschild. *Exp.* 32 millim.

1770 *d.* Spilosoma screabilis. (Plate LX. fig. 4.)

Spilosoma screabile, Wllgrn. Œfv. Vet.-Akad. Förh. xxxii. (1) p. 102 (1876).
Spilosoma semihyalina, Bartel, Iris, xvi. p. 188 (1903).

Is a distinct species; fore wing orange-buff with the fuscous fasciæ in the interspaces well developed; hind wing semihyaline white in male, orange-buff in female.

Hab. Br. E. Africa, Kilima'njaro (*Hannington*), 1 ♂; Mashonaland, Salisbury (*Marshall*), 4 ♂; Natal, Karkloof (*Marshall*), 1 ♂, Durban (*Gooch*, *Bowker*), 2 ♂, 2 ♀. *Exp.* 48–56 millim. Cotype† ♂ *semihyalina* in Mus. Berlin.

Larva. Fawcett, Trans. Zool. Soc. xv. p. 316, pl. xlix. f. 9 (1900).

Greyish white or buff; the somites with broad black dorsal and lateral transverse bands; the intrasomital spaces with fine transverse black lines; ventral surface black; hairs black and white; head, legs, and claspers bright red. Food-plant: *Ornithogalum ecklonii* or *Zea*. 12.

1770 *e.* Spilosoma jacsoni.

Diacrisia jacksoni, Roths. Nov. Zool. xvii. p. 140 (1910), & xviii. pl. 4. f. 28.

♂. Head and thorax grey; palpi yellow at base and black above; antennæ blackish; tegulæ edged with yellow and orange-red;

patagia edged with pale yellow, the thorax with subdorsal pale yellow stripes; fore coxæ orange at sides, the tibiæ orange above and black at extremity; abdomen deep orange above and white below, dorsal black spots on 3rd to 6th segments, a lateral series of spots and sublateral striæ except on terminal segments. Fore wing creamy white, the veins yellow, the interspaces with pale brownish grey streaks. Hind wing semihyaline white, the inner area with some yellow hair.

Hab. Br. E. Africa. Kikuyu, Nairobi (*Crawshay*), 1 ♂ (*Jackson*), type † ♂ in Coll. Rothschild; Nakuru (*Bodeker*), 1 ♂. *Exp.* 54 millim.

1770*f*. Spilosoma lentifasciata. (Plate LX. fig. 5.)

Diacrisia lentifascia, Hmpsn. Nov. Zool. xxiii. p. 236 (1916).

♂. Head and thorax fulvous orange, the tegulæ and patagia grey edged with fulvous orange; antennæ blackish, the shaft greyish above; palpi blackish at sides; fore coxæ and femora streaked with blackish, the tibiæ on outer side and the tarsi blackish; abdomen fulvous orange with dorsal and lateral series of black spots and sublateral blackish stripe except at base and extremity. Fore wing orange-yellow, the costal edge pale; some pale greyish below base of costa; faint greyish stripes below the cell and vein 2 and beyond the cell in discal fold to near termen; cilia pale at tips. Hind wing yellowish white, the inner area deeper yellow. Underside yellowish white, the costal area of both wings orange-yellow.

Hab. Mashonaland, Salisbury (*Marshall*), 2 ♂ type. *Exp.* 44 millim.

1770*g*. Spilosoma sinefascia. (Plate LX. fig. 6.)

Diacrisia sinefascia, Hmpsn. Nov. Zool. xxiii. p. 236 (1916).

Head and thorax pale yellow with some orange-yellow at tips of tegulæ and base of patagia; antennæ black; palpi blackish at sides; pectus orange; fore coxæ with blackish patches, the fore femora streaked with blackish, the fore and mid tibiæ blackish on outer side, the hind tibiæ blackish at base and with blackish stripe towards extremities, the tarsi blackish; abdomen orange with dorsal series of black bars and lateral and sublateral series of spots except at base and extremity, the ventral surface yellowish white. Fore wing uniform pale yellow. Hind wing pale yellow with some orange-yellow hair on inner area.

Hab. N. Nigeria, Minna (*Macfie*), 1 ♀, Zungeru (*Macfie*), 1 ♀; Mashonaland, Salisbury (*Marshall*), 2 ♂ type. *Exp.* 42–52 millim.

1770*h*. Spilosoma mundata. (Plate LX. fig. 7.)

Halesidota mundata, Wlk. xxxi. 309 (1864).

Is a distinct species. Fore wing creamy white, the costal edge

yellowish, the interspaces without streaks; hind wing semihyaline white, the inner area tinged with yellow.

Hab. Sierra Leone (*Foxcroft*), 1 ♂ type, R. Mano, Gongo (*Pearse*), 1 ♂; S. Nigeria, Lokoja (*Christy*), 1 ♂. *Exp.* 38 millim.

1771*a*. Spilosoma leighi. (Plate LX. fig. 8.)

Diacrisia leighi, Roths. Nov. Zool. xvii. p. 141 (1910).

♀. Head and thorax orange; antennæ black except at base; fore and mid legs tinged with fuscous; abdomen orange with dorsal and lateral series of black spots. Fore wing orange. Hind wing orange-black from before middle to near termen except at costa and inner margins, the inner and outer edges of the black area irregular; the underside uniform orange.

ab. 1. Hind wing with the black reduced to some suffusion below postmedial part of costa and diffused streaks on terminal part of median nervure and along veins 4 to 1 to near termen.—Cape Colony.

Hab. Natal, Durban (*Leigh*), type † ♀ in Coll. Rothschild; Cape Colony, Transkei (*Miss F Barrett*), 1 ♀. *Exp.* 40 millim.

1776. Spilosoma purpurata, insert:—

ab. *immaculata*, Fuchs, Jahrb. Nass. Ver. li. p. 206 (1898).
Fore wing with the spots more reduced.

ab. *transiens*, Spüler, Schmett. Eur. ii. p. 131 (1906).
Hind wing with the terminal area yellow.

ab. *flavescens*, Spüler, Schmett. Eur. ii. p. 131 (1906).
Hind wing pale yellow.

ab. *uralensis*, Spüler, Schmett. Eur. ii. p. 131 (1906).

ab. *infuscata*, Spüler, Schmett. Eur. ii. p. 131 (1906).
Fore wing tinged with brown.

var. *barteli*, Krul. Mater. faun. flor. Ross. ix. p. 171 (1909).

ab. *atromaculata*, Galv. ? ined.; Seitz. Gr.-Schm. pal. ii. p. 93 (1910).
Fore wing with the spots sharply defined; hind wing with the spots large and confluent.

ab. *berolensis*, Fuchs, ? ined.; Seitz, Gr.-Schm. pal. ii. p. 93 (1910).
Fore wing with the spots slightly reduced.

ab. *obscura*, Oberth. Ét. Ent. xx. pl. xviii. f. 293; id. Ét. Lép. Comp. v. i. p. 106 (1911), & vi. p. 323, pl. cxvi. f. 1029.

1778. Spilosoma metalcana, insert:—

ab. *vulnerata*, Illbrich, Rovart, Lap. xx. p. 116, figs. (1913).

Larva. Cerva, Zeit. Wissens. Ins. i. p. 294 (1905).

Yellow clothed with dark hair. Food-plants: *Euphorbia palustris*, *Caltha palustris*, *Iris pseudacorus*, *Nymphæa alba*.

1779. **Spilosoma sannio**, insert:—

var. *pallida*, Staud. Iris, v. p. 347 (1892).

var. *caucasica*, Schaposch. Ann. Mus. St. Petersb. ix. p. 253 (1904); id. Jachontov, Rev. Russ. Ent. xii. p. 24 (1912).

Paler; hind wing with the black markings reduced.—W. Turkestan; E. Siberia.

ab. *mœrens*, Strand, Arch. Naturv. Christian. xxv. 9. p. 23 (1903).

♂ with the hind wing dark.—Norway.

ab. *uniformis*, Bang-Haas, Iris, xx. p. 86 (1907); Seitz, Gr.-Schm. pal. ii. p. 94, pl. 14 *k*.

=ab. *irene*.—Samarkand.

ab. *immarginata*, Niepelt, Intern. Ent. Zeit. ii. p. 181 (1908).

=ab. *irene*.

ab. *amuri*, Staud. Rom. Mém. vi. p. 277 (1892).

Hind wing strongly tinged with red, the black markings sharply defined.—E. Siberia, Corea, Japan.

ab. *krejai*, Clos, Intern. Ent. Zeit. viii. p. 37 (1914).

*1782 *a*. **Spilosoma moltrechti.** (Plate LX. fig. 9.)

Diacrisia moltrechti, Miyake, Bull. Coll. Agric Tokio, viii. p. 153 (1909); Mats. Thousand Ins. Jap., Suppl. iii. pl. xxxv. f. 4.

♂. Orange-yellow suffused with scarlet; antennæ blackish; abdomen with dorsal series of black spots. Fore wing with slightly curved medial series of six black spots; two black spots on discocellulars and one just beyond upper angle of cell and an oblique series of three spots from lower angle to the medial series at vein 1. Hind wing with small antemedial black spot on vein 1; two discoidal spots and one just beyond the cell.

Hab. Japan. *Exp.* 34 millim. This species is unknown to me, figured from a drawing from type.

1783 *a*. **Spilosoma punctilinea.** (Plate LX. fig. 10.)

Diacrisia punctilinea, Wileman, Entom. xlii. p. 245 (1910).

♂. Head, thorax, and abdomen scarlet; palpi above and sides of frons black; antennæ blackish; legs streaked with black; abdomen with slight dorsal blackish spots on 5th to 7th segments, lateral series of small spots and sublateral spots on medial segments. Fore wing scarlet; a subbasal black spot on costa, curved antemedial series of six small spots, spots in upper angle of cell, four oblique medial series of seven spots from above vein 6 to inner margin, and a postmedial series of eight spots from above vein 6 to inner margin, slightly incurved below vein 4. Hind wing pale scarlet with subterminal black spot below vein 2.

Hab. Formosa, Kanshirei (*Wileman*), 1 ♂, type † ♂ in Coll. Wileman. *Exp.* 38 millim.

*1784 *a*. **Spilosoma cajetani.**

Diacrisia cajetani, Roths. Nov. Zool. xvii. p. 150 (1910), & xviii. pl. 3. f. 25.

♀. Head and thorax pale brownish ochreous; palpi fringed with crimson at base and black at tips; sides of frons black; (antennæ

wanting); pectus tinged with crimson; fore coxæ at sides and femora above crimson, the tibiæ and tarsi black; abdomen crimson, the ventral surface reddish ochreous, dorsal and lateral series of black spots and sublateral black points on medial segments. Fore wing brownish ochreous faintly tinged with crimson except on basal, costal, and inner areas; a black point at base of cell; a minute antemedial black streak on costa and small spot above vein 1 and on one side another below it, a minute black spot in upper angle of cell; an incurved postmedial series of spots on each side of veins 4 to 1, minute above and larger towards inner margin. Hind wing pale crimson; two slight blackish streaks at base of inner area; a large black discoidal spot; a subterminal spot at discal fold and spots above and below veins 2 and 1. Underside of fore wing suffused with crimson.

Hab. CERAM, type † ♀ in Coll. Rothschild. *Exp.* 58 millim.

1785. **Spilosoma montana**, insert (syn.):—

Diacrisia assamensis, Roths. Nov. Zool. xvii. p. 136 (1910).

ASSAM, Digboi (*Brunt*), type † ♂ in Coll. Rothschild.

1785*a*. **Spilosoma fumida.** (Plate LX. fig. 11.)

Diacrisia neurographa, Hmpsn. A. M. N. H. (8) iv. p. 360 (1909), ♀ nec ♂.
Diacrisia fumida, Wileman, Entom. xliii. p. 245 (1910).

Head and thorax grey-brown with a blackish stripe on dorsum of thorax; palpi and lower part of frons blackish; antennæ black; pectus at sides and fore femora with some crimson, the tibiæ and tarsi blackish; abdomen crimson, the extremity and ventral surface greyish, dorsal and lateral series of black spots. Fore wing grey-brown; an antemedial black point above vein 1; traces of a black point at upper angle of cell and two beyond lower angle; an oblique series of black points from apex to inner margin beyond middle placed in pairs on each side of the veins and obsolescent at middle; subterminal pairs of black points on each side of veins 5, 4, 3. Hind wing grey-brown, the inner area slightly tinged with crimson; a large black discoidal spot; small subterminal spots on each side of vein 5, traces of a point below vein 4 and a curved band formed by three spots from vein 3 to termen at vein 1. Underside of fore wing suffused with black on basal half except towards costa and inner margin, a large discoidal lunule, a postmedial spot below costa and oblique band from discal fold to vein 1, its upper extremity joined by an oblique series of points from apex; hind wing with the subterminal maculate band more entire.

Hab. FORMOSA, Rantaizan (*Wileman*), 6 ♂, Kagi Distr., 1 ♀. *Exp.*, ♂ 50, ♀ 54 millim. Type † in Coll. Wileman.

1787. **Spilosoma rubilinea**, insert:—

Diacrisia montana, brunnea, Roths. Nov. Zool. xvii. p. 143 (1910).

A rather dark form with the postmedial line of fore wing mostly black and greyish band beyond it at middle.

SIKHIM (*Lidderdale*), type † ♂ in Coll. Rothschild.

1787 *a*. Spilosoma neurographa. (Plate LX. fig. 12.)

Diacrisia neurographa, Hmpsn. A. M. N. H. (8) iv. p. 360 (1909).

♂. Head and thorax ochreous brown; palpi, antennæ, and shoulders black; thorax with dorsal black streak; legs black, the fore femora crimson above; abdomen crimson, the ventral surface ochreous brown, dorsal and lateral black streaks and sublateral series of small spots. Fore wing ochreous suffused with reddish brown, the veins pale, the costal edge black; an antemedial series of short black streaks from costa to just below cell where there is another short streak before it, an elongate spot above vein 1; wedge-shaped black spots in angle of cell with streaks beyond them and streaks above them on costal area; a postmedial black mark on costa divided into streaks by the pale veins and an oblique series of spots on each side of the veins from beyond lower angle of cell to inner margin; an oblique series of minute streaks on each side of the veins from apex, and a curved series on each side of veins 5 to 3 and spot on termen above tornus. Hind wing ochreous brown, the inner area tinged with crimson except on terminal area; a large black discoidal lunule; a curved postmedial series of small fuscous spots in the interspaces from costa to vein 2; an oblique series of minute spots on each side of the veins from apex, another subterminal series on veins 5 to 3, two large spots above tornus; a streak in extremity of submedian fold; the underside with wedge-shaped black patch in base of cell.

Hab. W. China, Pu-tsu-fong, 4 ♂; Formosa, Kagi Distr., 2 ♂ type. *Exp.* ♂ 44–48 millim.

1787 *b*. Spilosoma clava. (Plate LX. fig. 13.)

Diacrisia clava, Wileman, Entom. xliii. p. 189 (1910).

♂. Head white tinged with buff; palpi crimson at base, black at tips; frons at sides and antennæ black; thorax brown buff, the patagia with black spots; pectus dark brown in front; crimson streaks below the wings; the fore coxæ and femora above crimson, the tibiæ and tarsi black above; abdomen crimson, the base, tip of anal tuft and ventral surface buff, a dorsal series of black bands except at base, lateral series of spots and sublateral spots on medial segments. Fore wing buff suffused with brown except at base; a black fascia on basal third of costa; a black fascia on middle of inner margin with ante- and postmedial black spots above it above vein 1; a small spot at upper angle of cell and elongate spot above it on costa: an oblique series of black points from apex to below vein 6, then an oblique brownish line to the postmedial spot above vein 1; subterminal black points above veins 4 and 3. Hind wing pale buff, the inner area slightly tinged with purplish crimson; a black discoidal spot and subterminal spots at discal fold, below vein 2 and above and below vein 1. Underside of fore wing with the basal half and costal area to towards apex suffused with crimson.

Hab. Formosa, Rantaizan (*Wileman*), 1 ♂, type † ♂ in Coll. Wileman. *Exp.* 58 millim.

*1788 *a*. Spilosoma solitaria. (Plate LX. fig. 14.)

Diacrisia solitaria, Wileman, Entom. xliii. p. 245 (1910).

♀. Head and thorax pale brown-buff; the tips of tegulæ and the shoulders with yellow spots, the dorsum of thorax with black streak; palpi yellow at base, black at tips; sides of frons and antennæ black; fore coxæ yellow with black patches; legs black-brown; abdomen yellow with dorsal black spot on 2nd segment followed by a series of bands except on terminal segment, lateral spots on 2nd and 3rd segments and sublateral spots on medial segments. Fore wing brown-buff; a black spot at base of cell; antemedial spots on costa and above and below vein 1, spots in angles of cell with a spot above them on costa and slight spot beyond the discocellulars, and an oblique postmedial series of spots from above vein 2 to inner margin, the spots above and vein 2 minute. Hind wing brown-buff tinged with fuscous; a black discoidal spot and terminal series of rather diffused spots in the interspaces. Underside of fore wing suffused with fuscous.

Hab. Formosa, Kanshirei (*Wileman*), type † ♀ in Coll. Wileman. *Exp.* 56 millim.

1789 *a*. Spilosoma pratti.

Diacrisia pratti, Beth.-Baker, Nov. Zool. xi. p. 412, pl. 4. f. 23 (1904).

♂. Head black, the vertex brown-buff; thorax brown-buff with a large black patch on dorsum; pectus and legs black-brown; abdomen crimson with dorsal and lateral series of black spots, the ventral surface black, brown-buff at extremity. Fore wing brown-buff thickly mottled with red-brown; three black spots at base, an oblique antemedial series of three black spots from costa to vein 1; black points in the angles of cell; a small postmedial spot on costa, two beyond lower angle of cell and larger spots above and below vein 1 on traces of a red-brown band; black points towards apex above and below vein 7 and above 6; a subterminal series of points on each side of the veins. Hind wing orange-buff, the inner area suffused with crimson; a large black discoidal lunule and postmedial series of spots. Underside of fore wing with the cell and area below it suffused with crimson.

Hab. Br. N. Guinea, Ekeikei (*Pratt*), 2 ♂, Mt. Kebea, 6000′ (*Pratt*), 5 ♂, type † ♂ in Coll. Bethune-Baker. *Exp.* 58 millim.

*1789 *b*. Spilosoma eichhorni. (Plate LXVI. fig. 17.)

Diacrisia eichhorni, Roths. Nov. Zool. xxiv. p. 483 (1917).

♂. Head and thorax ochreous-white, the dorsum of thorax, patches on shoulders, frons and palpi velvety black-brown, some crimson at base of palpi and behind the eyes, the antennæ black-brown; abdomen crimson with dorsal series of small black spots

except at extremity; pectus and legs black-brown with some crimson below the shoulders and on fore coxæ; ventral surface of abdomen ochreous white with lateral and sublateral series of small black spots and subventral black fasciæ on basal half connected by segmental lines. Fore wing whitish suffused with ochreous, the costa black towards base; a small black spot at base of cell, subbasal spots in the cell and on vein 1, the latter emitting a short streak; an antemedial black band from costa to vein 1 formed by a streak on costa then by spots, interrupted by the pale veins and with a point below it above inner margin, its outer edge angled outwards just below the cell, a minute black spot in upper angle of cell, an oblique postmedial series of spots broken up by the pale veins, on costal area, at lower angle of cell, on vein 2 and at inner margin; a subterminal series of small double spots at the veins except at vein 2, with a maculate band before it from costa to vein 4, followed by some black points. Hind wing scarlet; a black discoidal spot and a subterminal maculate band from costa to above tornus; the spot above vein 3 slight. Underside of fore wing crimson except the terminal area.

Hab. D'Entrecasteaux Is., Goodenough I. (*Meek*), type † ♂ in Coll. Rothschild. *Exp.* 60 millim.

1789 *c.* **Spilosoma cebeæ.**

Diacrisia kebeæ, Beth.-Baker, Nov. Zool. xi. p. 413, pl. 4. f. 24 (1904).

♂. Head and thorax ochreous suffused with red-brown, the vertex of head paler, the patagia with black patches, the thorax with black dorsal stripe; palpi, sides of head, and antennæ black-brown; pectus and legs deep red-brown, the fore coxæ at sides and femora above crimson; abdomen crimson with dorsal maculate stripe and lateral series of spots, the ventral surface buff with sublateral blackish spots except towards extremity. Fore wing buff mottled with red-brown; a black point at base; the antemedial area with large oblique quadrate red-brown patch with slight black streaks on it; antemedial line double, black filled in with buff, angled outwards on median nervure, the inner line rather irregular; medial area deep red-brown with patches of buff on costa and above inner margin defined by black and a black patch below end of cell, bounded by the black postmedial line which is oblique and slightly sinuous to vein 4, then inwardly oblique and slightly excurved below submedian fold; a subterminal red-brown band with blackish points on its edges, expanding towards costa, narrow at middle, and obliquely incurved below vein 4, met at vein 6 by an oblique series of small black spots from apex; subterminal black points on each side of veins 5, 4, and above 3; the cilia with small black spots above and below vein 5. Hind wing crimson, the inner margin and termen paler; a large oblique black discoidal lunule and subterminal spots above veins 6, 5, 4, above and below vein 2, and on termen at vein 1. Underside pale brownish; fore wing

with some crimson suffusion on disk, the patches smaller and black; hind wing with obliquely curved black mark from costa beyond middle.

Hab. Br. N. Guinea, Fouka (*Pratt*), 1 ♂, Avola (*Pratt*), 1 ♂, Mt. Kebea (*Pratt*), 4 ♂, type † ♂ in Coll. B.-Baker. *Exp.* 56–64 millim.

*1789 *d*. Spilosoma ochrifrons.

Diacrisia ochrifrons, Joicey & Talbot, A. M. N. H. (8) xx. p. 50, pl. i. f. 2 (1907).

♂. Head ochreous white tinged with rufous, the sides of frons black-brown; antennæ and palpi black-brown; thorax ochreous suffused with red-brown, a black-brown stripe on dorsum, the patagia with a black-brown patch at base with a scarlet point in front of it; abdomen scarlet with a black-brown dorsal stripe expanding laterally on the segments except towards base; pectus and legs black-brown, the fore femora in front and patches below base of fore wing scarlet; ventral surface of abdomen ochreous with lateral and sublateral series of black-brown spots. Fore wing ochreous white suffused with rufous leaving the base, patches on costa between the bands, and the terminal area whiter; a small black-brown spot at base; a quadrate subbasal black-brown patch from costa to below the cell; an oblique medial band from costa to below the cell; a postmedial band from costa to below end of cell expanding into a discoidal patch and with an oblique narrower maculate band from it to inner margin; a subterminal band expanding on outer side at costa and with its outer edge angled outwards at discal fold, then reduced to small spots on veins 3, 2, 1, some points beyond it at veins 5 to 3; a terminal series of small black-brown spots between veins 7 and 2. Hind wing pale scarlet; a black-brown striga on upper discocellular and bifid subterminal spots at veins 5, 2, 1. Underside flesh-colour; fore wing with the basal half suffused with scarlet, the bands reduced to spots on the costa and disk; hind wing with small spot on costa above end of cell.

Hab. Dutch N. Guinea, Wandammen Mts. (*Pratt*), type † ♂ in Coll. Joicey, Arfak Mts. *Exp.* 64 millim.

1789 *e*. Spilosoma dinava.

Diacrisia dinava, Beth.-Baker, Nov. Zool. xi. p. 413, pl. 4. f. 25 (1904).

Head black, the vertex buff; thorax red-brown with some crimson below the tegulæ and black spots on shoulders; pectus and legs black-brown, the fore coxæ and base of femora above crimson; abdomen crimson above with dorsal series of black spots and larger patch before extremity, a lateral series of black spots, the ventral surface brown. Fore wing ochreous brown almost entirely suffused with red-brown leaving the costal area and veins somewhat paler; an antemedial black-brown patch from costa to vein 1, angled outwards

on median nervure, an irregular medial band strongly angled outwards on median nervure, much narrower below submedian fold and not extending below vein 1, connected by a fascia in lower end of cell with the postmedial band which expands into a large patch in and beyond end of cell and is then broken up into bifid spots on the veins; a spot on costa towards apex; an oblique and slightly incurved series of bifid spots on the veins from apex to inner margin; an oblique series of small bifid spots from termen at vein 5 to vein 3; some spots on termen from below apex to below vein 3. Hind wing yellow almost entirely suffused with crimson; a large black discoidal lunule; a postmedial series of five black spots of which the spots above veins 6 and 3 are small; some black points on apical half of termen. Underside of fore wing with the cell and area below it to inner margin suffused with crimson; hind wing brownish.

Hab. Br. N. Guinea, Dinawa, 4000′ (*Pratt*), type † ♂ in Coll. Bethune-Baker, Babooni (*Pratt*), 1 ♂, Mt. Kebea, 6000′ (*Pratt*), 6 ♂, Mafulu (*Pratt*), 1 ♀. *Exp.*, ♂ 58–62, ♀ 76 millim.

*1789 *f.* Spilosoma meeci.

Diacrisia meeki, Roths. Nov. Zool. xvii. p. 144 (1910), & xviii. pl. 4. ff. 17–22.

Head and thorax fulvous yellow; palpi and sides of frons black-brown; antennæ yellowish white with some fuscous on middle of shaft above; pectus ochreous, dark brown at sides and with some crimson below the wings; fore coxæ and the femora above crimson, the tibiæ and tarsi dark brown; abdomen crimson, the ventral surface ochreous, brown at sides, dorsal, lateral, and sublateral maculate black stripes. Fore wing ochreous sparsely striated with brown; the costa black towards base; antemedial line with black spot at costa, then reddish, angled outwards at median nervure to origin of vein 2, then interrupted to submedian fold and oblique to vein 1 where it terminates; a diffused reddish discoidal patch; postmedial line with black spot at costa, then reddish, excurved to vein 4, then oblique and slightly excurved at vein 1, a blackish mark beyond it on costa and a curved series of reddish points on the veins; a small black spot on costa before apex and subterminal series of slight reddish points on the veins; cilia tinged with rufous. Hind wing pale crimson; an oblique black discoidal lunule; subterminal black spots at discal fold, above and below vein 2 and at vein 1. Underside of fore wing suffused with crimson except on costal and terminal areas, two postmedial blackish bands interrupted beyond the cell and towards inner margin, the outer band joined at discal fold by an oblique series of points from costa towards apex; hind wing ochreous, the cell and basal half of costal area tinged with crimson, the discoidal lunule joined by an oblique bar to costa and with slight spots below it on veins 2 and 1.

ab. 1. Head, thorax, and fore wing brown, the last with the lines golden orange; hind wing pale brown slightly tinged with crimson.

ab. 2. Head and thorax dark red-brown; abdomen grey-brown

with diffused black dorsal stripe and the anal tuft ochreous; fore wing pale brown thickly irrorated and striated with dark brown, the veins pale, the lines dark brown, the discal patch black, the outer postmedial and subterminal lines with black points on each side of the veins. Hind wing grey-brown with a faint crimson tinge on inner area, postmedial and subterminal maculate bands, and small black spots before termen on veins 7 to 4.

Hab. Br. N. Guinea, St. Joseph R., Angabunga R. (*Meek*), type † ♂ in Coll. Rothschild, Mambare R. Biagi. *Exp.*, ♂ 58, ♀ 68 millim.

1789 *g*. Spilosoma rubribasis.

Diacrisia rubribasis, Joicey, Trans. Ent. Soc. 1915, p. 373, pl. 61, f. 1.

♂. Head and thorax whitish suffused with red-brown; antennæ fuscous; sides of frons and palpi black-brown; pectus and legs black-brown, the coxæ whitish tinged with red-brown, the femora dull scarlet except at extremities; abdomen pale dull scarlet with a diffused black-brown dorsal fascia except towards extremity and black bands on two terminal segments, lateral and sublateral series of black spots, the ventral surface whitish suffused with red-brown. Fore wing brownish ochreous with numerous reddish brown striæ except on basal and costal areas; a subbasal black spot on costa with short streak below it; an antemedial black spot on costa with the indistinct rufous antemedial line arising from it, excurved to below the cell, then oblique; some rufous in lower end of cell and on discocellulars; a postmedial black spot on costa with a rufous line arising from it, excurved to vein 5, then oblique and with two black spots above inner margin; a subterminal black spot on costa with traces of a curved line from it and minute black spot above vein 1; a small black spot on costa before apex and black points on each side of veins 7 to 3. Hind wing brownish ochreous, the veins tinged with rufous; some fuscous in lower part of cell and a black discoidal lunule; a series of black spots from costa before apex to termen at vein 1, the spots at discal fold, above and below vein 2 and at vein 1 larger; a minute black spot at apex. Underside of fore wing with the cell and submedian interspace suffused with crimson to end of cell, an oblique black bar on upper discocellullar, a subterminal black spot below costa and oblique band between discal and submedian folds; hind wing with short black streak below costa, spot in middle of cell, and another on costa above end of cell.

Hab. Dutch N. Guinea, Arfak Mts., Angi Lakes (*Pratt*), 1 ♂, type † ♂ in Coll. Joicey. *Exp.* 56 millim.

1789 *h*. Spilosoma persimilis.

Diacrisia persimilis, Roths. Seitz. Gr.-Schm. x. Ind. Austr. ii. p. 246, pl. 22 *g* (1913).

♂. Head and thorax dark reddish brown with some crimson hair on outer edge of tegulæ; antennæ with the shaft greyish ringed

with black towards base; some crimson hair below base of wings; fore coxæ and the femora above crimson; abdomen crimson with some brown hair at base of dorsum followed by a series of small spots and a band on anal segment, lateral series of black spots, the ventral surface red-brown. Fore wing greyish tinged and irrorated with red-brown; the costal edge dark brown, some brown suffusion at base; a rather diffused dark brown antemedial line, forming a spot at costa, strongly excurved at median nervure, then incurved; a diffused dark brown discoidal lunule connected with a patch on costa forming part of the rather diffused postmedial line, which is somewhat excurved beyond the cell, then incurved and connected with the discoidal lunule; a faint diffused curved subterminal line forming a spot at costa; a slight maculate brown line before termen. Hind wing pale crimson; a large rather diffused dark brown discoidal lunule with faint spots below it at vein 2 and submedian fold; a rather maculate dark brown subterminal band from costa just before apex to termen at vein 1; cilia whitish. Underside of fore wing with the postmedial and subterminal bands broader and more diffused, ending at submedian fold.

Hab. Dutch N. Guinea, Mt. Goliath (*Meek*), 1 ♂, type † ♂ in Coll. Rothschild. *Exp.* 44 millim.

*1789 *i*. Spilosoma fraterna.

Diacrisia fraterna, Roths. Nov. Zool. xvii. p. 145 (1910), & xviii. pl. 4 f. 18.

♂. Head and thorax ochreous tinged with fulvous; palpi and sides of frons black; a large black patch on prothorax with streak from it to metathorax; pectus black; femora crimson fringed with ochreous hair, the tibiæ and tarsi black; abdomen pale crimson with a blackish dorsal streak on medial segments, the ventral surface ochreous, lateral and sublateral black points on medial segments. Fore wing brownish ochreous; minute antemedial black spots on costa, below median nervure, and above vein 1; four black points at lower angle of cell; a postmedial series of black points on each side of the veins, excurved to vein 4, then incurved; a subterminal series of black points on each side of the veins from costa to vein 3, slightly excurved at vein 5. Hind wing pale ochreous yellow; a black discoidal lunule; subterminal black points on each side of vein 5 with traces of a series of points below it bent outwards to termen below vein 1; the underside with the costal area fulvous yellow, a slight postmedial black mark on costa.

Hab. Br. N. Guinea, Mambare R., Biagi (*Meek*), type † ♂ in Coll. Rothschild. *Exp.* 48 millim.

*1789 *j*. Spilosoma cymbalophoroides.

Diacrisia cymbalophoroides, Roths. Nov. Zool. xvii. p. 134 (1910), & xviii. pl. 4. ff. 20, 25.

♂. Head and thorax ochreous white; palpi and lower part of frons black-brown; antennæ black; tegulæ with large black spots,

the patagia with wedge-shaped black patches, the thorax with dorsal black streak dilated into a large patch on metathorax; pectus crimson with black-brown patches; legs crimson and black-brown; abdomen crimson, the ventral surface yellowish tinged with crimson, dorsal, lateral, and sublateral series of black spots. Fore wing creamy white; a small black spot on costa near base followed by a tridentate patch below costa; a curved black mark above inner margin before middle followed by a triangular spot; an oblique maculate black band from middle of costa to below vein 2, confluent with a patch at lower angle of cell which is confluent with another patch below it; a bifid patch on costa above end of cell with a spot beyond it on costa; an oblique wedge-shaped patch with waved edges from apex to below vein 6; a patch on vein 5 conjoined to a subterminal triangular patch on veins 4, 3; a small spot at extremity of vein 5. Hind wing ochreous, the inner area suffused with crimson: a black discoidal spot; a small postmedial spot above vein 6; a series of slight points from above vein 2 to termen at vein 1; an oblique series of three spots from apex to vein 5 and a bifid subterminal spot on veins 4, 3; the underside with the costa tinged with crimson, an antemedial black bar from costa to above median nervure and oblique postmedial bar formed of three spots from costa to vein 6.

♀. Fore wing with the black markings much more extensive and confluent, leaving the base, a fascia in submedian fold, some spots in, above, and beyond end of cell, an oblique bar from costa towards apex with a spot below it, and a maculate terminal band creamy white. Hind wing wholly suffused with crimson; a large fuscous patch from costa to vein 2 in and beyond end of cell and a subterminal series of large irregular patches and spots.

Hab. Flores (*Everett*), type † ♂ in Coll. Rothschild; Lombok, Sapit (*Frühstorfer*), type ♀. *Exp.*, ♂ 50, ♀ 60 millim.

1789 *k*. Spilosoma arctichroa. (Plate LX. fig. 15.)

Diacrisia arctichroa, Druce, A. M. N. H. (8) iii. p. 347 (1909).

Head and thorax buff; palpi, frons, and antennæ black-brown, the palpi scarlet at base; tegulæ slightly edged with yellow and sometimes with small black spots; patagia with black patches, the thorax with black dorsal stripe; pectus and legs black-brown, the fore femora scarlet above, the coxæ yellowish; abdomen scarlet, the extremity and ventral surface yellow, dorsal, lateral, and sublateral series of small black spots. Fore wing buff, the base of inner margin tinged with scarlet; the costal edge black towards base; a small black spot in base of cell and subbasal spot below the cell; an antemedial maculate band interrupted at the veins, angled outwards at middle and oblique towards costa and inner margin; an elongate black spot in and beyond upper extremity of cell with two small obliquely-placed spots above it; three postmedial black points below costa; an oblique series of very irregular spots and patches in the interspaces from apex to inner margin

beyond middle, some subterminal black points and minute spots from above vein 5 to below 3, sometimes almost obsolete, and an oblique series of three patches from above vein 2 to tornus, the uppermost sometimes conjoined to the postmedial series. Hind wing scarlet; a small discoidal black spot, postmedial spot on costa near apex, and sinuous series of small spots between veins 3 and 1; an obliquely curved series of small spots from termen below apex to vein 5 and three spots between vein 3 and tornus, the middle spot large; cilia yellow. Underside of fore wing scarlet except apical and terminal areas; hind wing pale scarlet.

Hab. Dutch N. Guinea, Fak-fak (*Pratt*), 1 ♂, type † ♀ in Coll. Joicey. *Exp.*, ♂ 48, ♀ 56–60 millim.

*1790 *a*. Spilosoma holobrunnea.

Diacrisia holobrunnea, Joicey, Trans. Ent. Soc. 1915, p. 373, pl. 61. f. 4.

♀. Head and thorax dark red-brown; sides of frons and palpi blackish; abdomen dull brownish orange, the base, extremity, and ventral surface red-brown, a maculate black dorsal stripe from 3rd to penultimate segment and lateral and sublateral spots except towards base. Fore wing dark red-brown mixed with some ochreous brown; a rather darker curved discoidal striga and faint curved postmedial line. Hind wing red-brown mixed with some greyish ochreous; an oblique black discoidal lunule; blackish subterminal spots above and below veins 5 and 2 and above tornus. Underside of fore wing with black discoidal lunule, the postmedial line diffused dark red-brown, from costa to vein 3, slight subterminal black spots on and below costa; hind wing with oblique blackish bar from costa above end of cell and more complete maculate subterminal band.

Hab. Dutch N. Guinea. Arfak Mts., Angi Lakes (*Pratt*), type † ♀ in Coll. Joicey. *Exp.* 62 millim.

*1791 *a*. Spilosoma novæguineæ. (Plate LX. fig. 16.)

Ardices novæguineæ, Roths. Nov. Zool. xx. p. 278 (1913).

♂. Head and thorax fulvous yellow; antennæ, palpi, and sides of frons blackish, pectus fuscous brown, scarlet in front; legs fuscous brown and fulvous yellow, the femora scarlet above; abdomen fuscous brown dorsally suffused with scarlet, ventrally with fulvous yellow. Fore wing fulvous yellow with broad black fasciæ in the interspaces leaving the veins, a fascia on medial part of costa, a streak in end of cell, irregular fascia in submedian fold, and a fascia on inner margin except towards tornus yellow; traces of a black antemedial line, incurved below submedian fold; a narrow fulvous yellow postmedial band, interrupted between veins 5 and 4 and incurved below vein 4; a narrow fulvous yellow subterminal band, interrupted between veins 5 and 3, angled outwards below vein 6 and inwards at submedial fold; cilia fulvous

yellow. Hind wing fuscous black, the veins and submedian fold obscurely streaked with scarlet; a slight blackish discoidal mark; a narrow rather diffused curved fulvous yellow postmedial band; the costa fulvous yellow towards apex; cilia fulvous yellow. Underside of fore wing with dull scarlet streak below postmedial part of costa, in cell, on median nervure and base of vein 2, and in submedian fold; hind wing with fulvous yellow fascia on medial part of costa, a slight subterminal mark above vein 5, and oblique bar from vein 3 to termen at submedian fold.

Hab. "German N. Guinea," Bolanberg (*Reysser*), type † ♂ in Coll. Rothschild. *Exp.* 38 millim.

1794 *a*. Spilosoma melanodisca. (Plate LX. fig. 17.)

Diacrisia melanodisca, Hmpsn. A. M. N. H. (7) xix. p. 236 (1907).

♂. Head and thorax deep rufous; antennæ whitish; patagia with black spots and paler tips; tibiæ and tarsi dark brown; abdomen dull orange with dorsal and lateral series of blackish spots. Fore wing buff tinged with rufous especially towards costa: a black point at base; an antemedial series of black points angled outwards just below cell; a large blackish patch in end of cell confluent with a medial maculate band which is angled on median nervure; an indistinct postmedial line with dark points on the veins, oblique from costa to vein 6, incurved at discal fold and oblique below vein 4, some small black spots beyond it towards costa and from vein 3 to inner margin met at vein 6 by an oblique fascia from costa near apex; cilia with a series of black spots. Hind wing pale dull yellow with small black discoidal lunule and subterminal spots at veins 5, 2, 1.

♀. Fore wing with the ground-colour bright rufous irrorated with brown.

Hab. Uganda, Ruwenzori, 6000′ (*Ruwenzori Exp.*), 1 ♂, 1 ♀ type. *Exp.*, ♂ 38, ♀ 40 millim.

1794. Spilosoma strigatula, insert (syn.):—

Diacrisia amilada, Swinh. A. M. N. H. (7) xx. p. 76 (1907).

Sumatra, Padang, 1 ♂ type.

Larva. Piepers, Tijd. v. Ent. xlviii. p. 184, pl. vi. ff. 2, 3.

1795. Spilosoma landaca, insert (syn.):—

Diacrisia sumatrensis, javanica, Roths. Nov. Zool. xvii. p. 147 (1910).

Java, Djember (*Möllinger*), type † ♂ in Coll. Rothschild.

Larva. Piepers, Tijd. v. Ent. xlviii. p. 185, pl. vi. ff. 4–6.

Young: grey; subdorsal line black; 4th and 5th somites with short orange hairs; oblique lateral grey streaks; the dorsal warts with tufts of black hair; head dark brown.

Adult: with thick tufts of black hair; orange on the 4th and 5th somites, a few black hairs among the orange hairs and white

hairs among the black ones; a white lateral line sometimes present; head and legs brown, claspers reddish. Food-plants: *Curcuma*, *Siegesbeckia orientalis*, *Pluchea indica*, *Adenostema viscosum*, and *Lantana camara*.

Pupa black or red-brown in a thick black silken cocoon mixed with hair.

1795 *a*. Spilosoma sumatrana. (Plate LX. fig. 18.)

Diacrisia sumatrana, Swinh. A. M. N. H. (7) xvi. p. 143 (1905).

♂. Dull reddish brown; antennæ whitish; palpi and frons darker brown; abdomen with very faint crimson tinge, dorsal and lateral series of obscure black spots. Fore wing with antemedial series of indistinct small dark spots, very oblique from costa to median nervure, then inwardly oblique; small indistinct spots at angles of cell and a series from lower angle to inner margin; traces of a subterminal series of dark points placed in pairs on each side of the veins; some slight points on termen. Hind wing with a very faint crimson tinge; an indistinct diffused dark discoidal patch and maculate subterminal band.

Hab. Sumatra, Soekaranda, 1 ♂ type. *Exp.* 36 millim.

subsp. *sumatrensis continentalis*, Roths. Nov. Zool. xvii. p. 147 (1910), & xviii. pl. 3. f. 31.

♂. Much darker, the head, thorax, and fore wing dark brown, the abdomen and hind wing rather paler.

Hab. Perak, type † ♂ in Coll. Rothschild.

1795 *b*. Spilosoma aurapsa. (Plate LX. fig. 19.)

Diacrisia aurapsa, Swinh. A. M. N. H. (7) xvi. p. 620 (1905).

♀. Head, thorax, and abdomen very dark red-brown, the last with scarlet lateral stripes except at extremity; antennæ pale. Fore wing very dark red-brown; traces of a dark medial line oblique from costa to lower angle of cell, then inwardly oblique; a slight black spot at upper angle of cell and points in and below lower angle; a faint minutely waved postmedial line excurved from costa to vein 4, then oblique; a slight oblique dark shade from apex. Hind wing dark greyish brown; the underside with diffused obliquely curved antemedial line, small spot at upper angle of cell, and curved postmedial and subterminal lines.

Hab. Amboina, Saparua I., 1 ♀ type. *Exp.* 46 millim.

1796. Spilosoma vagans, insert (syn.):—

Rhagonis bicolor, Wlk. Trans. Ent. Soc. (3) i. p. 271 (1862).

1797. Spilosoma rubra, insert (syn.):—

Diacrisia kaslon. Dyar. P. Ent. Soc. Wash. vi. p. 18 (1904).

1797 *a*. **Diacrisia danbyi**, Neum. is a distinct species.

1798. Diacrisia imparilis.

Larva, Miyake, Bull. Coll. Agric. Tokio, viii. p. 167; Wileman, Phil. Journ. Sci. xii. p. 237, pl. i. ff. 10, 11, 12.

Purplish fuscous; hairs greyish white and greyish black; head and legs greyish fuscous; dorsal and subdorsal series of greyish yellow spots; tubercles mostly ochreous brown, some on somites 6–12 metallic blue; prothoracic shield metallic blue. Food-plants: mulberry, peach, pear, plum, cherry, apple, elder, etc.

1798 *a*. Spilosoma melanochroa. (Plate LXVI. fig. 16.)

Spilosoma melanochroa, Hmpsn. Nov. Zool. xxv. p. 216 (1918).

♂. Head and thorax black-brown; tegulæ edged with yellowish dorsally and at sides; antennæ with the basal joint white; palpi orange-yellow at base in front; abdomen orange-yellow with dorsal and lateral series of small black spots, the hair at base of dorsum dark brown; fore coxæ orange-yellow; pectus and femora whitish and brown, the hind tibiæ banded black and white. Fore wing black-brown; an ochreous white antemedial line from discal fold to submedian fold where it is somewhat dilated; an oblique irregular ochreous white medial band from below costa to median nervure with slight streaks before and beyond it at subcostal nervure and beyond it in discal fold; the lower discocellular with ochreous white striga and the veins beyond the cell with slight ochreous white streaks; a curved ochreous white postmedial line, somewhat dentate at the veins and interrupted between veins 7, 6 and just below vein 3; a diffused rather maculate ochreous white terminal line from vein 7 to tornus. Hind wing black-brown with a slight whitish streak on extremity of subcostal nervure and base of vein 7; the underside greyer brown with whitish patches at base and middle of costa.

Hab. Madras, Nilgiris (*Andrewes*), 1 ♂ type. *Exp.* 30 millim.

1802. Diacrisia turensis, insert :—

var. *maracandica*, Seitz, Gr.-Schm. pal. ii. p. 92, pl. 17 *d* (1910).

Larger and often paler; fore wing with the black lines reduced to dots.

*1803 *a*. Spilosoma styx. (Plate LX. fig. 20.)

Diacrisia styx, Beth.-Baker, A. M. N. H. (8) vi. p. 443 (1910).

♂. Head and thorax fulvous orange; palpi, frons, antennæ, pectus, and legs black-brown; abdomen black-brown with lateral yellow fasciæ except towards base and the anal tuft orange, a ventral yellow fascia except towards extremity. Fore wing black-

brown, the veins streaked with whitish; an oblique elliptical white medial spot above vein 1; a curved white band on apical area from below costa to just before termen at vein 5. Hind wing black-brown.

Hab. Dutch N. Guinea, Arfak Mts., Ninay Valley (*Pratt*), type † ♂ in Coll. Bethune-Baker. *Exp.* 44 millim.

1804. Spilosoma sordida, insert :—

ab. *trifasciata*, Spüler, Schmett. Eur. ii. p. 128 (1906).
Fore wing with the dots confluent and forming maculate lines.
hybr. *seileri*, Caradja, Iris, xi. p. 393, pl. vi. ff. 1–6 (1908).
sordida + *luctuosa*.

1805. Spilosoma luctuosa, insert :—

ab. *djamila*, Schawerda, Verh. zool.-bot. Ges. Wien, lx. p. 91 (1910).

Wings with the spots more developed especially the subterminal spots of the hind wing.—Herzegovina.

1806. Spilosoma mendica, insert :—

ab. *binaghii*, Turati, Atti Mus. Milano, xlii. p. 39, pl. iii. ff. 3–6 (1903).
♂. Intermediate between *mendica* and *rustica*.
ab. *depuncta*, Schultz, Ent. Zeitschr. xxii. p. 183 (1908).
♀. Wings with one black point.
hybr. *standfussi*, Caradja, Soc. Ent. p. 49 (1894); Seitz, Gr.-Schm. pal. ii. p. 91, pl. 17 c.
♂. Sandy-colour; formed by crossing *mendica* with *rustica*.
hybr. *inversa*, Caradja, Iris, xi. p. 397, pl. vi. ff. 14, 15 (1898); Seitz, Gr.-Schm. pal. ii. p. 91, pl. 17 c.

White with many black points; formed by crossing *standfussi* ♀ with *rustica*.

hybr. *viertli*, Caradja, Iris, x. p. 371, pl. ix. ff. 5–11. (1897).
rustica ♂ + *sordida* ♀.
hybr. *hilaris*, Caradja, Iris, xi. p. 396, pl. vi. ff. 10–11 (1898).
viertli + *inversa*.
hybr. *beata*, Caradja, Iris, xi. p. 395, pl. vi. ff. 7–9 (1898).
viertli + *mendica*.

1808. Spilosoma infernalis.

var. *immaculalis*, Wileman, Phil. Journ. Sci. xii. p. 239, pl. ii. ff. 4, 5 (1917).
♀. Wings with the markings almost obsolete.
var. *maculalis*, Wileman, Phil. Journ. Sci. xii. p. 239, pl. ii. ff. 8, 9 (1917).
♀. Fore wing with the markings reduced to a postmedial band interrupted beyond the cell and almost conjoined to a broad curved subterminal band; hind wing with the postmedial band obsolete.

ab. Wileman, Phil. Journ. Sci. xii. p. 239, pl. ii. ff. 6, 7 (1917).

♀. Fore wing with the markings reduced to a spot at upper angle of cell, narrow oblique postmedial band from vein 5 to above inner margin with a spot beyond it above vein 5; hind wing with spot at upper angle of cell and subterminal spots at discal fold and between veins 4 and 1.

Larva. Miyake, Bull. Coll. Agric. Tokio, viii. p. 167; Wileman, Phil. Journ. Sci. xii. p. 239, pl. ii. ff. 2, 3.

Purplish fuscous; hairs whitish and blackish mixed; head ochreous brown; a yellowish dorsal line and some indistinct irregular lateral lines; tubercles of dorsal half metallic blue, the lateral tubercles ochreous brown. Food-plants: mulberry, peach, pear, cherry, apple, *Quercus serrata*, *Q. glandulifera*, *Salix*, etc.

*1809 *a*. Spilosoma anopunctata.

Diacrisia anopunctata, Oberth. Ét. Lép. Comp. v. i. p. 336, pl. lxxxii. f. 775 (1911).

♂. Head and thorax white, the tegulæ with black-brown subdorsal spots and yellow tips, the patagia with black points near base, the dorsum of thorax with broad brown stripe; antennæ black-brown; abdomen orange-yellow with dorsal black point on anal segment. Fore wing brown; the costa with four quadrate white spots to end of cell; a white patch below base of cell extending to inner margin at base and conjoined to a rather triangular antemedial spot below the cell; spots in middle and end of cell and a discoidal striga; obliquely placed medial spots below end of cell, in submedian interspace and an elongate spot above inner margin; a spot beyond end of cell with two spots beyond it, two small spots above it on costa and a point beyond lower angle of cell; an oblique bar formed by three spots from costa towards apex, and an oblique series of minute spots between vein 5 and inner margin, the spot in submedian interspace larger; a series of spots on termen, those below veins 5 and 4 just before termen with small spots beyond them; cilia chequered with black to vein 2. Hind wing white with fuscous discoidal spot, a small subterminal spot at discal fold and bar-shaped spots at vein 2 and above tornus.

Hab. W. China, Tse-kou. *Exp.* 52 millim. This species is unknown to me.

1810 *a*. Spilosoma chasiana.

Diacrisia khasiana, Roths. Nov. Zool. xvii. p. 148 (1910), & xviii. pl. 3. f. 19.

♂. Head and thorax black-brown, the vertex of head yellowish white, the tegulæ with dorsal and lateral yellowish white spots, the patagia with yellowish white patches on upper and lower edges; shoulders with small orange spots, the fore coxa with some orange

at sides, the femora with yellowish white patches; abdomen black-brown with narrow yellow bands. Fore wing black-brown, a small yellowish white spot at base; a subbasal spot below costa; an antemedial point in cell and large spot below the cell; a round spot in middle of cell with obliquely curved mark above its inner side; a rather quadrate patch below the cell and point above inner margin; a quadrate patch in end of cell; an oblique postmedial series of five spots, the spot in submedian interspace large and quadrate, the spot above inner margin small; subterminal spots above and below vein 7 with two minute spots above them; a series of seven spots before termen, the two spots towards apex and the spot in submedian interspace small. Hind wing brown, the cell pale yellow with two spots beyond it and a small spot below its extremity; a fascia in submedian interspace to beyond middle; a series of six rather elongate spots before termen and a faint diffused patch above tornus.

Hab. Assam, Khásis, 1 ♂. *Exp.* 52 millim. Type † ♂ in Coll. Rothschild.

*1810 *b*. Spilosoma turati.

Estigmene turatii, Oberth. Ét. Lép. Comp. v. i. p. 336, pl. lxxxii. f. 770 (1911).

♂. Head and thorax creamy white, the back of head scarlet, the tegulæ with large black-brown patches and edged with scarlet, the patagia and dorsum of thorax with black-brown stripes; abdomen scarlet with dorsal and lateral series of black spots, the ventral surface partly white. Fore wing black-brown, the veins streaked with whitish; creamy white spots below costa at and near base with a spot beyond them below the cell; a curved antemedial series of four spots, the spot in cell elongate and the spot above inner margin minute; medial quadrate spots on costa and in cell and an oblique series of three spots between lower angle of cell and inner margin; a round spot beyond the cell in discal fold and two small spots beyond lower angle; a curved postmedial series of spots, the spots above veins 3 and 2 strigiform and those above vein 4 and inner margin minute; an oblique patch from costa before apex, patches on termen at discal fold and above vein 2, two small spots below apex and one below vein 4, the last with a quadrate spot before it. Hind wing black-brown; an elongate creamy white spot below costa above end of cell with spot beyond it; a spot in discal fold just beyond the cell and another beyond lower angle; a pink streak below end of cell and a postmedial streak below vein 2 with creamy white points beyond and above it. Underside of fore wing with the lower part of spots below basal part of costa and above basal half of inner margin tinged with pink; hind wing with elongate creamy white spot below costa near base, two points on termen at discal fold and a slight streak at vein 2.

Hab. W. China, Siao-lu. *Exp.* 70 millim. This species is unknown to me.

1811 *a*. Spilosoma vivida.

Aloa vivida, Wileman, Entom. xliii. p. 246 (1910); Mats. Thousand Ins. Jap., Suppl. iii. pl. xxxv. ff. 3, 22.

Antennæ of male serrate on upperside, pectinate on lower.

♂. Head and thorax rufous; palpi crimson at base, black at tips; lower part of frons black; antennæ black; a crimson bar behind the eyes; fore coxæ and the femora above crimson, the tibiæ and tarsi black above; abdomen crimson, the ventral surface rufous, dorsal and lateral series of small black spots except at base and extremity. Fore wing rufous; a small antemedial black spot above vein 1; an oblique series of black points from below apex to

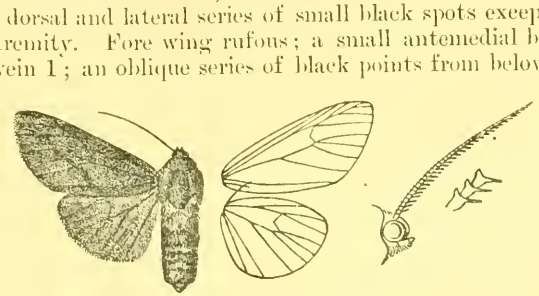

Fig. 92.—*Spilosoma vivida*, ♂. ½.

inner margin beyond middle, almost obsolete from below vein 6 to above 2; slight subterminal black points between veins 5 and 3. Hind wing crimson; a minute discoidal black point; cilia pale at tips. Underside of fore wing crimson.

♀. Frons black at sides only; hind wing with black discoidal spot and subterminal spots below vein 2 and on vein 1 nearer termen; underside of fore wing with black discoidal spot.

Hab. Formosa (*Elwes*), 1 ♂, Kanshirei (*Wileman*), 1 ♂, type † ♂, ♀ in Coll. Wileman. *Exp.*, ♂ 30, ♀ 60 millim.

1812. Spilosoma lineata, insert (syn.):—

Spilosoma albida, Bartel, Iris, xvi. p. 180 (1903).

"Germ. E. Africa," Dar-es-Salaam; cotype † ♀ in Mus. Berlin.

Larva. Fawcett, Trans. Zool. Soc. xv. p. 315, pl. xlix. f. 15 (1900).

Dark fuscous; each somite with six large and two small black tubercles bearing tufts of black hair; dorsal line pale ferruginous, darker at apex of each somite; ventral surface paler; head and legs black; spiracles ferruginous. Food-plant: *Passiflora*.

*1813 *a*. Spilosoma butti.

Diacrisia butti, Roths. Nov. Zool. xvii. p. 126, pl. 14. f. 42 (1910).

♂. Head and thorax pale ochreous yellow, the tips of tegulæ and a streak on dorsum of thorax orange; palpi and antennæ except at base black; legs black ringed with ochreous, the hind tibiæ mostly ochreous; abdomen orange dorsally banded with

black, a spot on basal segment and patch on anal segment, lateral and sublateral series of black spots, the ventral surface paler. Fore wing pale ochreous yellow; an antemedial black line expanding into a small spot at costa, angled inwards in cell and submedian fold and outwards at median nervure and to inner margin; a discoidal point; postmedial line black, bent outwards below costa, incurved at discal fold and below vein 4, connected on inner margin with the antemedial line by a black fascia. Hind wing pale yellow with small black discoidal spot.

Hab. Cape Colony, Beaufort West, Nieuwveld Mts. (*Mrs. Butt*), type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

1814*a*. **Spilosoma ougarra.** (Plate LXI. fig. 1.)

Diacrisia ougarra, Beth.-Baker, Nov. Zool. xv. p. 191 (1908).

♂. Head and thorax brownish white; palpi, frons, and antennæ black-brown; tegulæ with some black at base and scarlet below; patagia with large black patches; thorax with broad black dorsal stripe; pectus and legs black-brown, the femora scarlet above except towards extremities; abdomen scarlet with some whitish at base and extremity and dorsal and lateral series of black spots, the ventral surface brownish white with brown spot at base. Fore wing creamy white suffused with buff except on the veins and margin; the costa streaked with black-brown to beyond middle; slight subbasal black streaks below costa and in cell and a triangular patch below cell; a medial black spot on costa, oblique patch in cell and broad oblique band from cell to vein 1; a spot on costa above end of cell; an oblique quadrate discoidal patch and broad oblique band from lower end of cell to vein 1 interrupted by the white streak on vein 2 above which it is conjoined to the postmedial series of patches with the costal mark elongate, emitting a fork to apex and the patch above vein 1 bidentate; a terminal series of spots from vein 6 to 1, the spots smaller above and below, and those above veins 3 and 2 quadrate. Hind wing scarlet, the veins of terminal half whitish; an oblique triangular discoidal spot; a postmedial series of spots from costa to vein 1, the spots towards costa elongate; a wedge-shaped patch at apex followed by small spots to vein 3; cilia white with small black spots from apex to vein 3. Underside of fore wing scarlet, the apical area and veins whitish, the black markings as above; hind wing pale scarlet, the costal area and veins whitish, the black markings as above.

Hab. Br. N. Guinea, Owgarra (*Meek*), 1 ♂. *Exp.* 54 millim. Type † in Coll. Bethune-Baker.

subsp. *germanica*, Roths. Nov. Zool. xvii. p. 146 (1910).

♂. Fore wing with the black markings reduced, especially the postmedial markings between veins 4 and 2; hind wing with the postmedial band interrupted between veins 4 and 3.

Hab. "Germ. N. Guinea," Sattelberg (*Wahnes*), type †♂ in Coll. Rothschild, Dampier I.

1813 *b*. Spilosoma nyasica. (Plate LX. fig. 21.)

Diacrisia nyasica, Hmpsn. A. M. N. H. (8) viii. p. 409 (1911).

♂. Head orange-yellow; thorax creamy white, the tegulæ edged with yellow, the patagia and shoulders with black spots; palpi above and antennæ black; pectus and legs orange-yellow, the fore coxæ with black spots, the fore femora streaked with black, the fore and mid tibiæ black above with yellow ring at extremity, the tarsi black, the hind tarsi black ringed with yellow; abdomen orange-yellow with dorsal and lateral series of black spots except at base and extremity. Fore wing creamy white; a small black spot at base; an antemedial series of five black spots bent outwards at median nervure; a small discoidal spot and spot above it on costa; a small spot above base of vein 6 and incurved series of four spots between vein 3 and inner margin. Hind wing orange-yellow; a black discoidal point. Underside of fore wing orange-yellow with black discoidal point.

ab. 1. Fore wing with the antemedial black spot in cell and the postmedial spots above veins 6 and 2 absent.

Hab. Br. C. Africa, Zomba (*Neave*), 2 ♂ type. *Exp.* 38 millim.

1814. Spilosoma turbida.

The female described is the form *meeci*, Druce, from the Trobriand Is.; the male is similar.

Diacrisia turbida woodlarkiana, Roths. Nov. Zool. xvii. p. 145 (1910), & xviii. pl. 4. f. 29.

A form from Woodlark I. Similar to *S. meeci* but with the ground-colour of fore wing wood-brown not scarlet. Type † ♀ in Coll. Rothschild.

Diacrisia turbida montana, Roths. Nov. Zool. xvii. p. 145 (1910), & xviii. pl. 3. f. 10 ♂, pl. 4. f. 19 ♀.

Fore wing wood-brown with a fuscous tinge, the costal and inner areas usually cream-coloured, sometimes grey-brown.

Br. N. Guinea, Dinawa (*Pratt*), 1 ♂, Mt. Kebea (*Pratt*), 3 ♂, Babooni (*Pratt*), 1 ♂, Foula (*Pratt*), 4 ♂, Sogeri, 1 ♀. Type † ♂, ♀ in Coll. Rothschild.

Diacrisia sordidior, Roths. Nov. Zool. xvii. p. 146 (1910).

♂. Similar to *S. turbida* but the fore wing pale wood-brown, the termen chequered brown and cream colour.

♂. Similar to *S. montana* but the fore wing dark wood-brown not tinged with fuscous, the costa cream-coloured.

Br. N. Guinea, Milne Bay, Kumasi R., Mambare R.; "Germ. N. Guinea," Sattelberg; D'Entrecasteaux Is., Fergusson and Goodenough Is. Type † ♂, ♀ in Coll. Rothschild.

1814 *b*. Spilosoma accensa. (Plate LXI. fig. 2.)

Pericallia accensa, Swinh. A. M. N. H. (7) xii. p. 193 (1903).

♀. Head yellowish white; palpi crimson, the 3rd joint, lower part of frons, and antennæ fuscous; thorax white tinged with

crimson, tegulæ crimson below; pectus and femora above crimson; legs fuscous; abdomen crimson, the ventral surface whitish, dorsal, lateral, and sublateral series of black spots. Fore wing flesh pink, the terminal area tinged with yellow; a black spot at base of costa; an antemedial black spot on costa with a point below it and two obliquely-placed spots on inner area; an irregular elongate spot below costa just beyond middle, and a lunule in upper angle of cell with a point beyond it; an oblique postmedial series of spots from above vein 4 to inner margin increasing in size towards the margin; a short subterminal streak below vein 6. Hind wing deep crimson with black discoidal spot; the costal area and cilia yellow; the underside with black spot on costa near base and more yellow on apical and terminal areas.

Hab. Sumatra, Dili (*Frühstorfer*), 1 ♀ type. *Exp.* 70 millim.

1814 *c*. **Spilosoma coccinea.** (Plate LXI. fig. 3.)

Diacrisia coccinea, Hmpsn. A. M. N. H. (7) xix. p. 237 (1907).

♂. Head white; palpi scarlet, the 3rd joint blackish; antennæ black; tegulæ and patagia white edged with scarlet, the latter with black spot; thorax scarlet with pair of dorsal white streaks; pectus scarlet; legs white, the femora scarlet above, the tibiæ and tarsi streaked with brown; abdomen scarlet with dorsal, lateral, and sublateral black spots on medial segments, the ventral surface white. Fore wing scarlet, the interspaces of disk thinly scaled, the costa and veins towards base streaked with white, the inner area with slight blackish irroration; small antemedial black spots below costa and above and below vein 1; small postmedial spots above and below vein 1; cilia whitish. Hind wing semihyaline, the costal and inner areas and termen suffused with scarlet.

♀. Fore wing with the disk not thinly scaled; hind wing wholly scarlet, the cilia whitish.

Hab. Philippines, Luzon, Benquet Prov., Irisan (*McGregor*), 1 ♂, 1 ♀ type. *Exp.*, ♂ 40, ♀ 54 millim.

1815. **Spilosoma subcarnea**, del. *Hyarias oberthuri*, and insert:—

Diacrisia robustum, tsingtauana, Roths. Nov. Zool. xvii. p. 123 (1910).

N. China, Tsingtau, type † ♀ in Coll. Rothschild.

Larva. Miyake, Bull. Coll. Agric. Tokio, viii. p. 102; Wileman, Phil. Journ. Sci. xii. p. 234, pl. ii. f. 1.

Ochreous yellow with long ochreous hairs, a brownish subdorsal line, the tubercles greyish white; head and legs fulvous black. Food-plant, mulberry.

1815 *a*. **Spilosoma metarhoda.** (Plate LXI. figs. 4 ♂, 5 ♀.)

Spilosoma metarhoda, Wlk. vii. 1695 (1856).

♂. Head and thorax white; palpi crimson; sides of frons and antennæ brown; femora crimson above; tibiæ and tarsi brown above; abdomen crimson, white below, dorsal, lateral, and sublateral

series of small black spots. Fore wing creamy white with black spot at base, otherwise immaculate or with small antemedial spot above vein 1, spot at upper angle of cell, postmedial spots above and below vein 1, and subterminal spots below costa and vein 6. Hind wing white, the inner area tinged with crimson, immaculate or with black discoidal spot.

♀. Fore wing flesh-pink, a black point at base, otherwise immaculate or with antemedial black point above vein 1 and oblique striga on upper discocellular; hind wing crimson, immaculate or with black discoidal spot.

Hab. Philippines, Cebu, 1 ♂, 1 ♀, Taytai (*Betton*), 1 ♀. *Exp.*, ♂ 38, ♀ 50–56 millim.

Larva. Semper, Lep. Phil. ii. p. 488, pl. P. ff. 1, 2, 3.

Brown thickly clothed with long brown hair, a reddish brown lateral stripe with the white-centred stigmata on it and whitish spots above and below it. Food-plants: "Ilang-ilang," etc.

1817. **Spilosoma niceta**, del. *Spilosoma metarhoda*, and insert:—

Diacrisia niceta saturata, Roths. Nov. Zool. xvii. p. 152 (1910).

A form from the Kei Is. with the fore wing dark buff in male and the hind wing entirely crimson, in female the fore wing suffused with brownish pink. Type † ♂, ♀ in Coll. Rothschild.

Diacrisia niceta papuana, Roths. Nov. Zool. xvii. p. 152 (1910).

A form with the fore wing creamy white, the interspaces tinged with brownish buff.

Dutch N. Guinea, Waigeu, Dorey, Fak-fak; "Germ. N. Guinea," Constantinhafen, Sattelberg; Br. N. Guinea, Mt. Kebea (*Pratt*), 3 ♂, Babooni (*Pratt*), 3 ♂, Sogeri, 1 ♂, Kumasi R., Mambare R., Moroka; Aru Is. Type † in Coll. Rothschild.

Diacrisia niceta intermedia, Roths. Nov. Zool. xvii. p. 153 (1910).

Br. N. Guinea; D'Entrecasteaux Is.; Trobriand Is.; Louisiades. Type † in Coll. Rothschild.

Diacrisia niceta mysolica, Roths. Nov. Zool. xxii. p. 210 (1915).

♀. Fore wing immaculate; hind wing with black discoidal spot.

Mysol (*Tauern*), type † ♀ in Coll. Rothschild.

Diacrisia niceta pallida, Roths. Nov. Zool. xxiii. p. 333 (1916).

Fore wing pale flesh colour.

Br. N. Guinea; Bismarck Arch., Admiralty Is., Vulcan I. type † ♂ in Coll. Rothschild.

1818. **Spilosoma nebulosa**, insert (syn.):—

Diacrisia simanensis, Miyake, Bull. Coll. Agric. Tokio, viii. p. 163, fig. 2 (1909).

Japan, Shimane, Mionaseki, 1 ♂ cotype, Shiga, Zeze.

1820*a*. **Spilosoma viridis.** (Plate LXI. fig. 6.)

Phragmatobia viridis, Druce, A. M. N. H. (7) xii. p. 222 (Aug. 1903).
Diacrisia viridis, Dogn. Le Nat. (2) xvii. p. 213 (Sept. 1903).

♂. Head and thorax grass-green; palpi scarlet, sides of frons

brown; pectus and legs scarlet, the tibiæ green above; abdomen scarlet suffused with brown. Fore wing grass-green; the costal edge pale red; a slight subbasal black mark in cell; antemedial line black, expanding into a wedge-shaped patch on costa, acutely angled outwards on median nervure, then very obliquely incurved to inner margin; a black discoidal lunule with blackish point above it below costa; postmedial line forming a black spot on costa, then slightly incurved and outwardly oblique to vein 5 where it is excurved, then strongly incurved and forming a black spot on inner margin. Hind wing rather paler grass-green; a slight brown postmedial line, excurved from vein 6 to 4, then incurved and ending at vein 1 above tornus. Underside of fore wing with black streak on base of costa.

Hab. S.E. Peru, Carabaya, S. Domingo, 1 ♂, types † ♂ in Colls. Joicey and Dognin. *Exp.* 42 millim.

1821 *a*. Spilosoma togoensis. (Plate LXI. fig. 7.)

Spilosoma togoensis, Bartel, Iris, xvi. p. 184 (1903).

♂. Head, thorax, and abdomen deep orange; palpi with the 3rd joint black; antennæ black, except basal joint; tarsi black above; abdomen with dorsal series of black spots except on basal segment, the spot on terminal segment larger, a lateral series of small spots and sublateral series of points except on basal and terminal segments. Fore wing fulvous orange with black discoidal point. Hind wing deep orange with elliptical black discoidal spot. Underside orange; fore wing with the retinaculum black, both wings with elliptical discoidal spot.

Hab. W. Africa (*Dudgeon*), 1 ♂, Togoland, Bismarckburg, cotype † ♂ in Mus. Berlin. *Exp.* 40–43 millim.

1822 *a*. Spilosoma hampsoni.

Diacrisia hampsoni, Joicey, Trans. Ent. Soc. 1915, p. 375, pl. 61. f. 5.

♂. Head orange; antennæ black-brown; frons and palpi velvety black-brown; thorax velvety black-brown, the outer edge of tegulæ and upper edge of patagia orange; coxæ and femora, except at extremities, orange; abdomen orange-yellow, the extremity with black-brown patch, the ventral surface with black-brown bands. Fore wing velvety black-brown; a rather irregular creamy white streak in submedian fold from base to the subterminal line; a creamy white subbasal line from costa to the streak; antemedial line creamy white, expanding at costa, oblique to the streak, then incurved; a curved creamy white medial line from costa to the streak; postmedial line creamy white, expanding at costa, excurved to discal fold, then incurved; subterminal line creamy white, angled inwards to the postmedial line at lower angle of cell and to the streak at submedian fold and outwards to termen at discal fold and vein 2; cilia creamy white. Hind wing creamy white,

the basal and inner areas orange-yellow; a small subterminal blackish spot at vein 1.

Hab. Dutch N. Guinea, Arfak Mts., Angi Lakes (*Pratt*), 1 ♂, type † ♂ in Coll. Joicey. *Exp.* 54 millim.

1823 *a*. **Spilosoma alcumena,** Berg, is a distinct species.

Diacrisia alcumena kennedyi, Roths. Nov. Zool. xvii. p. 154 (1910).

A form from Minas Geraes with the inner area of hind wing yellow. Type † ♂ in Coll. Rothschild.

Diacrisia alcumena flavitincta, Roths. Nov. Zool. xvii. p. 154 (1910).

A form from Venezuela: male with the striated lines of terminal area of fore wing reduced and the inner area of hind wing yellow; female with broad brown band on fore wing beyond the medial band, hind wing yellow with broad medial and subterminal brown band. Type † ♂, ♀ in Coll. Rothschild.

Diacrisia alcumena steinbachi, Roths. Nov. Zool. xvii. p. 154 (1910).

A form from Bolivia with the streaks on apical area of fore wing replaced by an irregular transverse brown band. Type † ♂ in Coll. Rothschild.

1824 *a*. **Acantharctia latifasciata.** (Plate LXI. fig. 8.)

Acantharctia latifasciata, Hmpsn. A. M. N. H. (8) iv. p. 361 (1909).

♂. Head and thorax ochreous with a broad blackish fascia on vertex of head and thorax; palpi mostly black; antennæ black; legs streaked with blackish; abdomen fulvous yellow with black segmental bands. Fore wing ochreous with broad fuscous fasciæ from base through the cell to termen, in submedian interspace and in interspaces of terminal area from costa to vein 2. Hind wing pale ochreous with broad fuscous fasciæ from before middle through the cell to termen and in submedian interspace, and short fasciæ above extremities of veins 6, 3, 2.

♀. Hind wing with the fasciæ broader and more prominent and with fasciæ above extremity of vein 4 and on vein 1.

Hab. Transvaal (*C. H. Pead*), 1 ♂, 1 ♀ type, Pretoria (*Breyer*), 1 ♀. *Exp.* 42 millim.

1824 *b*. **Acantharctia tenuifasciata.**

Acantharctia tenuifasciata, Hmpsn. P. Z. S. 1910, p. 394, pl. xxxvi. f. 33.

♂. Frons yellow, the vertex of head and thorax white; palpi black above; antennæ black, the shaft white above on basal half; legs yellow, the tibiæ and tarsi brown above; abdomen white at base, then yellow with dorsal brown bands. Fore wing white; the costal edge yellow; the interspaces with faint brownish fasciæ, the fascia in discal fold from middle of cell to termen and the fascia above vein 6 more distinct. Hind wing pure white.

Hab. Congo, Katanga Distr. (*Neave*), 2 ♂ type. *Exp.* 38 millim.

1824 *c*. **Acantharctia atriramosa.** (Plate LXI. fig. 9.)

Acantharctia atriramosa, Hmpsn. A. M. N. H. (7) xix. p. 237 (1907).

Head and thorax ochreous white; antennæ black, ochreous at base; legs black; the femora above orange; abdomen pale orange tinged with brown, the base white, the extremity and ventral surface greyish, lateral series of black spots and sublateral stripes. Fore wing ochreous white; a black fascia, from middle of subcostal nervure to apex emitting a short spur on vein 6; a black fascia on median nervure emitting finer branches on veins 4, 3, 2; a black streak on vein 1 to termen. Hind wing white.

Hab. Uganda (*Doggett*), 1 ♀, type; N.W. Rhodesia, Kashitu (*Dollman*), 1 ♂. *Exp.* 44 millim.

1828. **Amsacta marginalis**, insert (syn.) :—

Acantharctia fuscosa, Bartel, Iris, xvi. p. 194 (1903).

Togoland, Bismarckburg; cotype † ♂ in Mus. Berlin.

1829. **Amsacta melanogastra**, insert (syn.):—

Diacrisia epicaste, Fawcett. P. Z. S. 1915, p. 93, pl. i. f. 5.

Br. E. Africa, Masongaleni (*Feather*), type ♂.

1833 **Amsacta lineola**, insert (syn.) :—

Diacrisia felderi, Roths. Nov. Zool. xvii. p. 124 (1910).

Punjab, Kotegarh (*Stoliczka*), type † ♀ in Coll. Rothschild.

1833 *a*. **Amsacta flavicosta.** (Plate LXI. fig. 10.)

Amsacta flavicosta, Hmpsn. A. M. N. H. (8) iv. p. 362 (1909).

♂. Head and thorax white; palpi, upper part of frons, back of head, and tips of tegulæ yellow; antennæ with the branches black; femora yellow above, the fore and mid tibiæ and the tarsi streaked with black below; abdomen white with subdorsal yellow stripes except at base and extremity and lateral series of black points. Fore wing white, the costal edge yellow; a black point at lower angle of cell. Hind wing semihyaline white.

Hab. Sierra Leone (*Dudgeon*), 1 ♂ type; N.W. Rhodesia, Mwengwa (*Dollman*), 1 ♂. *Exp.* 34 millim.

1833 *b*. **Amsacta nivea.** (Plate LXI. fig. 11.)

Amsacta nivea, Hmpsn. Nov. Zool. xxiii. p. 237 (1916).

♂. Head and thorax pure white; antennæ black-brown except the basal joint; palpi and legs yellow; abdomen orange-yellow with dorsal, lateral, and sublateral series of small black spots except on basal segment, the ventral surface white. Wings silvery white, the costal edge of fore wing yellow.

Hab. E. Transvaal, Karino (*Cooke*), 1 ♂ type. *Exp.* 32 millim.

1833 *c*. Amsacta flavizonata. (Plate LXI. fig. 12.)

Amsacta flavizonata, Hmpsn. A. M. N. H. (8) viii. p. 409 (1911).

♀. Head and thorax white, the palpi, back of head, and tips of tegulæ yellow; antennæ with the branches black, some yellow between their bases; femora yellow above, the fore femora, fore and mid tibiæ, and the tarsi on inner side streaked with black; abdomen white, the medial segments dorsally yellow, lateral series of black points. Fore wing white, the costal edge yellow; antemedial black points on costa and above vein 1 and on one side below median nervure; a black point at upper angle of cell and two minute points at lower angle; a postmedial series of points, incurved below vein 3; a subterminal series of points from costa to vein 3, placed in pairs on each side of the veins; a series of points just before termen. Hind wing semihyaline white.

ab. 1. Fore wing with the series of points almost obsolete.

ab. 2. Abdomen with dorsal series of black and white spots on the yellow segments.

Hab. S. Nigeria, Oshogbo (*Simpson*), 1 ♀ type; N. Nigeria, Minna (*Macfie*), 2 ♀. *Exp.* 36–40 millim.

*1833 *d*. Amsacta mombasana. (Plate LXI. fig. 13.)

Diacrisia mombasana, Roths. Nov. Zool. xvii. p. 154 (1910).

♂. Head and thorax creamy white; palpi black at tips, antennæ black, the shaft ringed with white; fore coxæ and femora above suffused with yellow, the tibiæ banded with black, the tarsi black ringed with white; abdomen orange, the base white, the extremity and ventral surface white tinged with yellow, a dorsal series of black bands and lateral and sublateral series of spots. Fore wing creamy white; a small black spot at base of cell; antemedial points on costa and above vein 1; a point just beyond lower angle of cell and small spot on costa above upper angle; a small postmedial spot on costa and point in discal fold; a subterminal point on costa and terminal point at discal fold. Hind wing creamy white; small subterminal black spots below costa and at discal and subterminal folds; the underside with discoidal spot.

Hab. Br. E. Africa, Mombasa, type † ♂ in Coll. Rothschild. *Exp.* 54 millim.

1833 *e*. Amsacta ugandæ. (Plate LXI. fig. 14.)

Amsacta ugandæ, Hmpsn. Nov. Zool. xxiii. p. 237 (1916).

♀. Head and thorax white; antennæ black below; head behind and tegulæ slightly edged with yellow; patagia and metathorax with small black spots; fore and mid femora and tibiæ, the mid tibiæ and tarsi streaked with black, the fore and hind tarsi with black spots; abdomen dorsally orange, the two basal and the anal segment white, the orange segments with dorsal white patches and black spots, a lateral series of black spots, and sublateral spots on

four medial segments. Fore wing creamy white; the costal edge yellow; a subbasal black spot in cell, antemedial points below costa in upper part of cell, below the cell and above vein 1; small spots at angles of cell with points in and beyond lower angle; two points below vein 2 towards its origin; a postmedial series of points on each side of the veins, excurved to vein 4, then incurved; a subterminal series of small spots on each side of the veins from costa to vein 2, the spot below vein 6 and the spots at vein 2 nearer the base; a subterminal point in submedian fold; a series of points just before termen from below apex to above vein 3. Hind wing pure white, rather thinly scaled; the underside with small black discoidal spot.

Hab. Uganda, Entebbe (*Neave*), 1 ♀ type. *Exp.* 48 millim.

1833*f*. Amsacta atricrures. (Plate LXI. fig. 15.)

Amsacta atricrures, Hmpsn. Nov. Zool. xxiii. p. 237 (1916).

♂. Head and thorax pale brownish ochreous, the patagia with black points near base; antennæ black-brown; palpi black-brown except at base; fore legs and the mid and hind tibiæ and tarsi black-brown; abdomen orange with dorsal and lateral series of minute black spots on 3rd to anal segments. Fore wing pale brownish ochreous; a small subbasal black spot on costa; an antemedial black spot on costa with point below it and small spots above and below vein 1; a postmedial black point below costa. Hind wing orange-yellow. Underside of both wings orange-yellow, the hind wing with black discoidal point.

Hab. Br. E. Africa, Pemba I. (*Burtt*), 1 ♂ type. *Exp.* 38 millim.

1837. Amsacta cardinalis, insert (syn.) :—

Amsacta cardinalis, celebensis, Roths. Nov. Zool. xvii. p. 158 (1910).

Celebes (*Lorquin*), type † ♀ in Coll. Rothschild.

subsp. *reducta*, Roths. Nov. Zool. xvii. p. 158 (1910).

Similar to ab. 1 but hind wing tinged with ochreous and with terminal moderately sized black spots at apex, discal fold below vein 2, and on vein 1.

Hab. Moluccas, Besi Is., Tockan, Tomia (*Kühn*), type † ♂ in Coll. Rothschild. *Exp.* 60 millim.

subsp. *lutcomarginata*, Roths. Nov. Zool. xvii. p. 158 (1910).

Similar to ab. 1, but the back of head, tips of tegulæ, femora above, and costa of fore wing yellow; hind wing with black discoidal spot only.

Hab. Flores, Larantuka; Timor, Oinanisa; Dammer I. (*Kühn*), type † ♀ in Coll. Rothschild; Tenimber Is., Leti, Moa, Larat. *Exp.* 70 millim.

1839. Amsacta lactinea.

Larva. Piepers, Tijd. v. Ent. xlviii. p. 187, pl. vii. ff. 1–3.

*1841 *a*. Amsacta hampsoni. (Plate LXI. fig. 16.)

Amsacta hampsoni, Roths. Nov. Zool. xvii. p. 157 (1910).

♀. Head and thorax white, the thorax tinged with brownish ochreous; palpi crimson above and black at tips; antennæ black with the basal joint crimson; neck with crimson ring; patagia with black spots; fore coxæ and femora above crimson, the tarsi ringed with black; abdomen crimson, the extremity and ventral surface brownish white, dorsal and lateral series of black spots and sublateral black points on medial segments. Fore wing white tinged with ochreous, the costa crimson; ante- and postmedial black points above vein 1, a point in upper angle of cell and a few scales beyond lower angle. Hind wing white tinged with buff; a black discoidal spot, small spot on costa just before apex, and subterminal spots at vein 5, below vein 2, and at vein 1; the underside with black spot at base of costa and small subterminal spot above vein 2.

Hab. Gold Coast, Ga nbaga (*Bury*), type † ♀ in Coll. Rothschild. *Exp.* 50 millim.

1841. Amsacta albistriga.

♀. Fore wing white with the brown reduced to some small marks along median nervure and in and beyond lower angle of cell, a streak above vein 1 from before the antemedial to beyond the postmedial line, a slight spot beyond upper angle of cell, a series of minute spots on the postmedial line interrupted at discal fold, with two points beyond it below costa, an elongate subterminal spot at discal fold, a point below vein 3 and small spots nbove and below vein 1.

Madras, S. Arcot, Palur Farm.

1841 *a*. Amsacta seminigra.

Amsacta seminigra, Hmpsn. A. M. N. H. (7) xv. p. 447 (1905).

Antennæ of male serrate; head and thorax clothed with rather rough hair; fore tibiæ very short, the claws conjoined by a curved corneous membrane so as to form a triangular process.

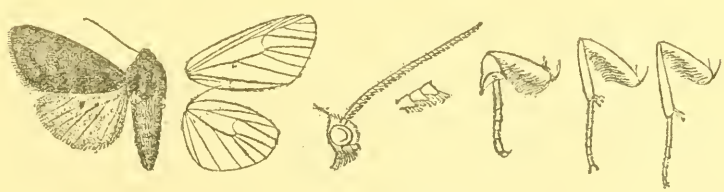

Fig. 93.—*Amsacta seminigra*, ♂. ½.

♂. Head and thorax black; femora scarlet above; abdomen orange, tinged with red towards base, a subdorsal series of blackish spots, becoming bands on terminal segments, a series of lateral spots, the ventral surface black. Fore wing black; an indistinct darker

discoidal lunule and traces of antemedial, medial, postmedial, and subterminal bands. Hind wing white, the marginal areas tinged with yellow and the base of inner margin slightly with red; a small discoidal black spot and two small subterminal spots above tornus.

♀. Abdomen and hind wing yellower.

Hab. Abyssinia, Zegi Tsana (*Degen*), 1 ♂ type, Harrar, 1 ♀. *Exp.* 40 millim.

*1845 *a*. Creatonotus lasti.

Pericallia lasti, Roths. Nov. Zool. xvii. p. 168 (1910), & xviii. pl. 3. ff. 14–21.

♂. Head and thorax fuscous brown; palpi with some crimson at base, the back of head with crimson patch; abdomen crimson, the basal segment brown, dorsal and lateral series of black spots, the ventral surface brown with whitish bands. Fore wing black-brown with oblique white band from below costa just beyond middle to vein 1 near tornus. Hind wing black-brown with round white spot below lower angle of cell.

♀. Fore wing with the white band extending to costa, towards which it expands; hind wing with oblique white spot just beyond the cell, the spot below the cell quadrate and extending from just above vein 3 to submedian fold.

Hab. Madagascar, Morondava (*Last*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 40, ♀ 46 millim.

*1845 *b*. Creatonotus dulla.

Agarista dulla, Pag. Jahrb. Nass. Ver. xxxix. p. 115 (1886); Kirby, Cat. Het. p. 28.

♀. Head brown, the proboscis yellow, a yellow spot above frons, and the back of head yellow; thorax yellow; pectus and legs brown; abdomen brown, the extremity yellow, the ventral surface with the terminal segments yellow, the anal tuft brown. Fore wing black-brown with a broad oblique slightly curved band from costa just beyond middle to tornus, somewhat constricted below costa and its inner edge sinuous. Hind wing black-brown with an oblique orange-yellow patch from above vein 3 to near tornus.

Hab. Kéi Is. *Exp.* 60 millim.

subsp. *aurantiaca*, Roths. Nov. Zool. xvii. p. 168 (1910).

♀. Fore wing with the band tinged with scarlet; hind wing with the patch extending to tornus and the cilia.

Hab. Dutch N. Guinea, Kapaur (*Doherty*), type † ♀ in Coll. Rothschild.

subsp. *borealis*, Roths. Nov. Zool. xvii. p. 168 (1910), & xviii. pl. 3. ff. 15–27.

♂. Head and thorax yellow; antennæ brown; vertex of head with two black spots; tegulæ and patagia with black spots; dorsum of thorax with brown patch forking in front; pectus with some brown at sides; abdomen brown, the ventral surface yellow.

Fore wing orange-yellow; a black point at base; a broad black fascia above vein 1 from near base to beyond middle, where it is hooked, to just above inner margin; the apical area black-brown narrowing to a point at submedian fold and emitting a streak just below costa to middle. Hind wing black-brown, a terminal yellow band narrowing to a point at tornus and with slightly sinuous inner edge.

♀. Differs from the subspecies *aurantiaca* in the fore wing being orange-yellow; hind wing with the oblique patch extending to vein 5 and with a small spot on costa just before apex.

ab. 1. Hind wing with the spot on costa much enlarged.

ab. 2. Hind wing with the spot on costa absent.

Hab. Dorey (*Doherty*), type † ♂, ♀ in Coll. Rothschild; Dutch N. Guinea, Humboldt Bay. *Exp.*, ♂ 40, ♀ 56 millim.

*1845 *c*. Creatonotus gracilis. (Plate LXI. fig. 17.)

Spilosoma gracilis, Staud. Iris, xii. p. 354, pl. 5. f. 13 (1899); id. Cat. Lep. pal. p. 365.

♂. Pale ochreous; palpi scarlet above, the 3rd joint black; antennæ black with the basal joint scarlet; tarsi banded with black, the fore coxæ in front and femora above scarlet; abdomen dorsally scarlet with lateral and ventral series of black spots. Fore wing with the costal edge orange-red; a curved antemedial series of three black spots below costa and cell and above vein 1; small black lunules in and beyond upper angle of cell and a point beyond lower angle; two small obliquely placed postmedial spots below costa, one above vein 2 and two above inner margin. Hind wing with the inner area rather yellower; a black discoidal spot.

Hab. Palestine, Dead Sea, in Coll. Püngeler. *Exp.* 40 millim.

1847. Creatonotus vittata, insert:—

ab. *buea*, Strand, Arch. Naturg. lxxviii. A. 12. p. 124 (1913).—Cameroons.

1847 *a*. Creatonotus neurophæa. (Plate LXI. fig. 18.)

Creatonotus neurophæa, Hmpsn. A. M. N. H. (8) viii. p. 409 (1911).

♂. Head, thorax, and abdomen white; palpi above and sides of frons black; antennæ blackish; black spots above frons and on tegulæ and patagia; throat with tufts of blackish hair; fore coxæ and the femora above orange-yellow, the tibiæ and tarsi blackish in front. Fore wing pure white; a black spot at base and discoidal point; vein 1 from before middle and the veins arising from cell except on costal area slightly streaked with blackish. Hind wing pure white with black discoidal point.

Hab. W. Africa (*M. Pounds*), 1 ♂ type; Gold Coast, Bibianaha (*Spurrell*) 2 ♂, Kumasi (*Sanders*) 1 ♂. *Exp.* 40 millim.

1848. Creatonotus gangis.

Larva. Piepers, Tijd. v. Ent. xlviii. p. 188.

1850 *a*. Creatonotus brunneipennis. (Plate LXI. fig. 19.)

Creatonotus brunneipennis, Bartel, Iris, xvi. p. 195 (1903).

♂. Head and thorax white tinged with pink, the tegulæ and dorsum of thorax with broad black stripe; antennæ black; frons at sides and palpi black-brown; pectus and legs black-brown with some crimson below base of wings, the coxæ at sides and femora above crimson; abdomen bright crimson with dorsal and lateral series of black spots, the ventral surface black-brown. Fore wing pale flesh-pink slightly tinged with brown; a black fascia below median nervure from near base to near end of cell; a subbasal blackish point in the cell, black point in lower angle and small spot beyond the angle; a short black streak before termen above vein 5. Hind wing semihyaline white. Underside of fore wing more strongly tinged with brown, the retinaculum black; hind wing with the costal area tinged with brown-pink.

Hab. Uganda, Entebbe (*Minchin*), 1 ♂; "Germ. E. Africa," Tanganyika. *Exp.* 44 millim.

1851. Creatonotus transiens, insert (syns.):—

Aloa vacillans, Wlk. vii. 1702 (1856).
Creatonotus koni, Miyake, Bull. Coll. Agric. Tokio, viii. p. 153 (1909).

Larva. Piepers, Tijd. v. Ent. xlviii. p. 190, pl. vi. f. 7.

1852. Hyphantria cunea, insert:—

ab. *suffusa*, Streck. Lep. Rhop. & Het. Suppl. 3. p. 28 (1900).

Fore wing with the markings confluent leaving the veins, inner margin, and termen narrowly white.

ab. *brunnea*, Streck. Lep. Rhop. & Het. Suppl. 3. p. 28 (1900).

Uniform brown.

1852 *a*. Hyphantria strigulosa. (Plate LXI. fig. 20.)

Hyphantria strigulosa, Hmpsn. A. M. N. H. (7) viii. p. 185 (1901).
Estigmene atropunctata, Fawcett, Tr. Zool. Soc. xvii. p. 179, pl. vii. ff. 23–26 (1903).

♂. Head and thorax white tinged with yellow; palpi black, the basal joint orange; antennæ black with some white scales on shaft above; tegulæ edged with orange; patagia with slight black streaks; femora orange above; fore tibiæ streaked with black, the tarsi banded with black; abdomen orange with dorsal and lateral black points on terminal segments, the anal tuft and ventral surface ochreous white. Fore wing ochreous white, the costal edge orange; a black streak in base of cell; subbasal streaks below costa and above and below vein 1; an antemedial streak below the cell and a spot above vein 1; two slight medial streaks in cell, points in and beyond upper angle of cell; a postmedial series of diffused irregular

spots interrupted in places and incurved below vein 3; a subterminal series of short streaks on each side of veins 7 to 3 bent outwards to apex, points further from base above and below vein 2 and a point above vein 1 near tornus; a terminal series of points in the interspaces. Hind wing ochreous white; a black discoidal spot and slight streak on apical part of termen.

♀. Head, thorax, and fore wing with more yellow, the last with the black markings more developed, the spots on costal area larger, the median nervure, the bases of veins arising from it and vein 1 strongly defined on each side by black; hind wing tinged with buff, a black streak followed by two spots in submedian interspace, and three subterminal spots between apex and vein 4.

Hab. Transvaal, Piet Retief (*Crawshay*), 1 ♂, Belfast, 1 ♂ type *atropunctata*; Natal, 1 ♂ type. *Exp.* 40–42 millim.

Larva. Head red; body dark slate-grey to black with series of velvety black warts; each somite with eight black warts bearing tufts of hair which are grey dorsally, whitish laterally; legs and claspers bright red. Food-plant, *Vernonia gerrardi*.

Pupa red-brown in a slight cocoon among leaves of the food-plant.

1852 *b*. Hyphantria atripes. (Plate LXI. fig. 21.)

Hyphantria atripes, Hmpsn. A.M.N.H. (8) iv. p. 362 (1909).

♀. Head and thorax white; patagia with black spots at middle and two on outer edge; the femora yellow above, the fore and mid tibiæ striped with black, the tarsi blackish ringed with white; abdomen white with subdorsal yellow bands except at base and extremity and lateral series of black points. Fore wing white, the costal edge yellowish; a black point in base of cell and obliquely-placed subbasal points in and below the cell; an antemedial series of black points angled outwards on median nervure and incurved below costa and cell; paired medial black points below costa, at middle and vein 1, angled outwards at median nervure, then oblique; a black point at upper angle of cell and three at lower angle; a postmedial series of black points, bent outwards below costa, oblique to vein 4 and slightly incurved at discal fold, then oblique; a subterminal series of black points in pairs on each side of the veins; a terminal series of small black spots. Hind wing white; the underside with slight black discoidal point.

Hab. Gold Coast, Volta R. (*Dudgeon*), 1 ♀ type. *Exp.* 40 millim.

1853 *a*. Hyphantria penthetria. (Plate LXI. fig. 22.)

Hyphantria penthetria, Dyar, Pr. U.S. Nat. Mus. xlii. p. 56 (1912).

♂. Head and tegulæ white; palpi with some black hairs; frons and tegulæ with black spots; antennæ black; thorax yellowish white, the patagia with dorsal grey-black stripes; legs white ringed with black, the fore femora and tibiæ marked with orange; abdomen orange with dorsal series of black bands and lateral and sublateral series of spots. Fore wing grey-black; the veins streaked

with white, except the discocellulars, the subcostal streak and streak on vein 1 broader towards base; a white streak in submedian fold from near base to beyond middle; cilia white except at vein 3. Hind wing grey-black; a white streak in submedian fold from base to beyond middle; cilia white except at vein 3.

ab. 1. Fore wing with the white streaks narrower.

Hab. Mexico, Tehuacan (*Müller*), 2 ♂, Guerrero, Hidalgo (*Mann & Skewes*), 1 ♂. *Exp.* 38 millim.

1855 *a*. **Estigmene cosmeta.** (Plate LXI. fig. 23.)

Spilosoma cosmeta, Lower, Tr. R. Soc. S. Austr. xxxi. p. 170 (1907).

♂. Head and thorax orange mixed with brown; palpi and sides of frons blackish; antennæ brown; fore femora pale crimson above; abdomen pale crimson with blackish dorsal and lateral maculate stripes, the ventral surface orange banded with blackish. Fore wing orange irrorated with blackish; a rather diffused blackish antemedial line angled outwards on median nervure; a diffused blackish discoidal spot; medial line excurved round the discoidal spot, then obliquely incurved; a diffused blackish postmedial band, angled outwards at vein 5, then oblique; a diffused blackish terminal band narrowing to tornus. Hind wing orange-yellow; a black discoidal spot; a black subterminal band from just below costa to above tornus, expanding to termen at veins 2 and 1; a terminal black line from apex to vein 2. Underside of both wings orange with black discoidal spots and subterminal band.

Fore tibia with the claw minute.

Hab. N.S. Wales, Cockburn (*Lower*), 2 ♂. *Exp.* 30 millim.

1856. **Estigmene imbuta**, insert:—

Estigmene imbuta sikkimensis, Roths. Nov. Zool. xvii. p. 162 (1910).

An aberration with the spots of fore wing fewer and reduced, the underside of abdomen wholly black.

Sikhim, type ♂, ♀ in Coll. Rothschild.

Estigmene imbuta khasiana, Roths. Nov. Zool. xvii. p. 162 (1910).

An aberration with the veins of fore wing more prominently orange; hind wing uniform brown with the veins yellow.

Assam, Khásis, type † ♂, ♀ in Coll. Rothschild.

*1858 *a*. **Estigmene ochreomarginata.**

Estigmene ochreomarginata, Beth.-Baker, A. M. N. H. (8) iii. p. 429 (1909).
Amsacta ansorgei, Roths. Nov. Zool. xvii. p. 157 (1910), & xviii. pl. 3. f. 36.

♂. Head and thorax dark reddish brown, the neck with slight orange ring; abdomen orange with dorsal series of black spots, the ventral surface dark brown. Fore wing dark reddish brown, the costa orange and some orange at base of inner margin. Hind wing pale yellow, the cilia brown from apex to vein 2; the underside with the costal area suffused with brown.

Hab. Uganda, Acholi Country, Patigo, type † ♂ in Coll. Bethune-Baker, Unyoro, Kitanwa (*Ansorge*), type † ♂ *ansorgei* in Coll. Rothschild. *Exp.* 40 millim.

1858 *b*. Estigmene griseata.

Estigmene griseata, Hmpsn. P. Z. S. 1916, p. 102, pl. i. f. 1.

♀. Head and thorax brownish grey, the back of head and tips of tegulæ orange-yellow, the patagia with small black spots near base; palpi black at tips; abdomen fulvous orange with lateral series of small black spots. Fore wing brownish grey; a small black spot at base of cell; black points in the angles of cell and two beyond lower angle. Hind wing white tinged with reddish brown. Underside brownish white, the costal area of both wings tinged with red-brown; hind wing with black discoidal spot.

Hab. Somaliland, Mandera (*Feather*), 1 ♀ type. *Exp.* 40 millim.

*1858 *c*. Estigmene stygioides. (Plate LXVI. fig. 18.)

Estigmene stygioides, Roths. Nov. Zool. xxiii. p. 271 (1916).

♂. Head and thorax yellow suffused with rufous; antennæ with the shaft grey, the branches black; frons and palpi yellow; abdomen orange-yellow banded with black; pectus, legs, and ventral surface of abdomen yellow, the legs slightly tinged with brown. Fore wing yellow tinged with rufous. Hind wing reddish brown, thinly scaled, the cell and area below it hyaline, the costa pale yellow to beyond middle. Underside of fore wing suffused with reddish brown, the costa yellow.

Hab. S. Nigeria, R. Benue, Abinsi, type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

1859. Estigmene dissimilis.

Larva. Fawcett, Tr. Zool. Soc. xvii. p. 179, pl. vii. ff. 20–22.

Head ferruginous with a ∧-shaped black mark between the eyes; body black with an indistinct dorsal series of brownish spots, the two terminal spots yellowish; a brownish lateral line and an interrupted pale ochreous subspiracular line; warts with black hairs of varying lengths, the subspiracular warts with ferruginous hairs; spiracles white; legs and claspers pale ferruginous. The young larva with the head, legs, and claspers black, no ochreous subspiracular line. Food-plant, *Vernonia gerrardi*.

Pupa red-brown in a cocoon among the leaves of the food-plant.

1859 *a*. Estigmene melanocera. (Plate LXII. fig. 1.)

Estigmene melanocera, Hmpsn. Nov. Zool. xxiii. p. 237 (1916).

♂. Head and thorax cream colour; antennæ black; palpi black at tips; shoulders and patagia with black spots; pectus yellow; fore coxæ with black patches, the fore legs black above, the mid tibiæ and tarsi black above, the extremity of hind femora, the basal half of tibiæ above and the tarsi black; abdomen orange-yellow with dorsal and lateral series of black spots except on basal segment

and sublateral points on three medial segments. Fore wing cream-coloured; a black spot in base of cell; an antemedial spot on costa and point below the cell; a medial spot on costa with small spot below it and spots above and below vein 1; a point below lower angle of cell on left side only; a postmedial spot on costa with point below its extremity, and points above and below vein 1. Hind wing orange-yellow with small black discoidal spot; cilia whitish.

Hab. Br. C. Africa, Zomba (*Old*), 1 ♂ type. *Exp.* 38 millim.

*1859 *b*. Estigmene mediopunctata. (Plate LXI. fig. 2.)

Amsacta mediopunctata, Pag. Jahrb. Nass. Ver. lvi. p. 14 (1903)

♀. Head, thorax, and abdomen orange-yellow; antennæ black, except basal joint; abdomen with lateral series of black points and two small sublateral spots towards extremity. Fore wing pale yellow; a subbasal black point in cell, points in upper and lower angles of cell and two beyond lower angle. Hind wing pale yellow with black discoidal spot.

Hab. N.E. Africa (*Erlanger*), type † ♀ in Coll. Pagenstecher. *Exp.* 28 millim.

1859 *c*. Estigmene unipuncta. (Plate LXII. fig. 3.)

Estigmene unipuncta, Hmpsn. A. M. N. H. (7) xv. p. 447 (1905).

♀. Orange-yellow; palpi, pectus, and legs grey-brown; abdomen with dorsal black spots on 2nd, 3rd, and 4th segments, a lateral series, and the ventral surface grey-brown. Fore wing with black point at lower angle of cell.

♂. Hind wing yellowish white.

Hab. Br. E. Africa, Njoro (*Cholmley*), 1 ♂, S. Kavirondo, Kuja Valley (*Neave*), 1 ♂; Uganda, Entebbe (*Minchin*), 1 ♂; "Germ. E. Africa," Dar es-Salaam, 1 ♀ type; Mashonaland (*Dobbie*), 2 ♂. *Exp.* 34–38 millim.

1859 *d*. Estigmene carschi. (Plate LXII. fig. 4.)

Spilosoma karschi, Bartel, Iris, xvi. p. 189 (1903).

♂. Head, thorax, and abdomen orange-yellow; antennæ brown, the shaft whitish above; palpi, pectus, legs, and ventral surface of abdomen except terminal segment brown. Fore wing uniform yellow. Hind wing yellowish white.

♀. Fore and hind wings orange-yellow.

Hab. Togoland, Bismarckburg, cotype † ♂ in Mus. Berlin; N. Nigeria, Zungeru (*Macfie*), 4 ♂; Uganda, Ruwenzori (*Wollaston*), 1 ♂; Br. C. Africa, Mt. Milangi (*Neave*), 3 ♂, 3 ♀. *Exp.* 32–44 millim.

*1859 *c*. Estigmene laglaizei.

Estigmene laglaizei, Roths. Nov. Zool. xvii. p. 163 (1910), & xviii. pl. 37, xii. f. 38 (1919).

♀. Head and thorax pale brownish ochreous; antennæ blackish; legs tinged with fuscous; abdomen yellow with dorsal and lateral series of black spots except on basal and terminal segments, the ventral surface brownish ochreous. Fore wing uniform brownish ochreous. Hind wing yellow.

Hab. Senegambia, Casamance (*Laglaize*), type † ♀ in Coll. Rothschild. *Exp.* 36 millim.

1860 *a*. Estigmene gynephæa. (Plate LXII. figs. 5 ♂, 6 ♀.)

Estigmene gynephæa, Hmpsn. A. M. N. H. (7) viii. p. 185 (1901).

♂. Head orange; palpi and antennæ blackish; thorax pale yellow; pectus and legs grey, the latter with the femora orange above; abdomen orange with dorsal and lateral series of black spots except on 1st segment, the ventral surface grey-white. Fore wing yellow, the veins finely streaked with black except on costal area. Hind wing pale yellow.

♀. Head and thorax deep orange; pectus, legs, and ventral surface of abdomen fuscous. Fore wing orange-brown, the costal area to beyond middle, the inner margin finely, and the cilia orange; a black point at lower angle of cell. Hind wing fuscous black; a diffused orange streak on median nervure; the inner margin and cilia orange; an orange discoidal point; the underside orange with large fuscous patch on terminal area from costa to vein 2.

Hab. Mashonaland (*Dobbie*), 1 ♀, Salisbury (*Marshall*), 2 ♂, 1 ♀ type. *Exp.*, ♂ 36, ♀ 38 millim.

*1860 *b*. Estigmene nigrocastanea. (Plate LXVI. fig. 19.)

Diacrisia nigrocastanea, Roths. Nov. Zool. xxiv. p. 483 (1917).

♀. Head and thorax fulvous yellow, the antennæ black, the lower part of frons and palpi dark brown; abdomen orange with dorsal black spots on 2nd to 6th segments and quadrate patch on two terminal segments; pectus, legs, and ventral surface of abdomen black-brown, the fore femora orange above. Fore wing uniform fulvous yellow. Hind wing orange-yellow with a broad black terminal band except at tornus, its inner edge slightly irregular. Underside of fore wing orange-yellow with broad black-brown band on terminal area, arising below the costa, narrowing somewhat to inner margin and leaving the termen, very narrowly, and the cilia orange.

Hab. Br. C. Africa, Angoniland, Lilongwe (*Andrews*), type † ♀ in Coll. Rothschild. *Exp.* 38 millim.

*1860 *c*. Estigmene ansorgei. (Plate LXII. fig. 7.)

Estigmene ansorgei, Roths. Nov. Zool. xvii. p. 163 (1910).

♂. Head and thorax pale yellow; palpi black above; antennæ blackish except the shaft towards base; pectus in front and fore

coxæ brownish, the tibiæ and tarsi striped with black; abdomen orange-yellow with lateral series of small black spots except at base and extremity. Fore wing pale ochreous, the veins finely streaked with blackish. Hind wing ochreous white.

Hab. Uganda, Usogo, Mtanda (*Ansorge*), type † ♂ in Coll. Rothschild, Kampala. *Exp.* 34 millim.

1860 *d*. Estigmene similis. (Plate LXII. fig. 8.)

Estigmene similis, Roths. Nov. Zool. xvii. p. 164 (1910).

♂. Head and thorax pale ochreous; palpi with some blackish at sides of 2nd and 3rd joints; antennæ with the branches black; abdomen with dorsal series of blackish bars and lateral series of small black spots except towards base and extremity. Fore wing uniform ochreous. Hind wing ochreous white.

ab. 1. Hind wing ochreous, the terminal half suffused with fuscous brown.

Hab. Uganda, Kitoma (*Doggett*), 1 ♂, Victoria Nyanza, Ukerewe, type † ♂ in Coll. Rothschild; N.W. Rhodesia, Solwezi (*Dollman*), 1 ♂. *Exp.* 40 millim.

1860 *e*. Estigmene neuriastis. (Plate LXII. fig. 15.)

Estigmene neuriastis, Hmpsn. A. M. N. H. (7) xix. p. 237 (1907).
Acantharctia pembertoni, Roths. Nov. Zool. xvii. p. 156 (1910), & xviii. pl. 3. f. 33.

♂. Head whitish; palpi and antennæ blackish; thorax greyish, the tegulæ and patagia edged with orange; tibiæ and tarsi brownish streaked with black; abdomen orange with dorsal black segmental bands, the ventral surface yellowish white with lateral and sublateral series of small black spots. Wings yellowish white, the veins finely streaked with blackish; fore wing with the margins rather yellower.

Hab. Angola, Bihé, 1 ♂ type, type † ♂ *pembertoni* in Coll. Rothschild. *Exp.* 44 millim.

1862 *a*. Estigmene unilinea. (Plate LXII. fig. 16.)

Estigmene unilinea, Roths. Nov. Zool. xvii. p. 163 (1910).

♂. Head, thorax, and abdomen ochreous tinged with brown; palpi, antennæ, and legs brown; abdomen with dorsal series of black bars except at base and lateral series of small spots. Fore wing brownish ochreous; a black point at base and fascia along median nervure and vein 4 from near base to near termen, tapering at extremities and rather broad at middle. Hind wing ochreous.

Hab. Gambia, Bathurst; Sierra Leone (*Bartlett*), 1 ♂; Senegambia, Casamance, Thiés; S. Nigeria, Lagos, Ebute Meta (*Boag*), 1 ♂, Anabara Creek, type † ♂ in Coll. Rothschild, Warri, Ogrugu, Asc, Lokoja, Ilesha (*Humfrey*), 2 ♂; N. Nigeria, Zungeru (*Mactie*), 2 ♂, Minna (*Macfie*), 2 ♂. *Exp.* 34 millim.

1864 *a*. **Estigmene multivittata.** (Plate LXII. fig. 17.)

Estigmene linea, subsp. 1, Hmpsn. Cat. Lep. Phal. B.M. iii. p. 342.
Estigmene multivittata, Roths. Nov. Zool. xvii. p. 164 (1910).

♀. Fore wing with the black fasciæ sometimes so broad that they coalesce and cover almost the whole wing.

Hab. Abyssinia, Kutai Mecha (*Degen*), 1 ♂, Lake Nakuru; Br. E. Africa, Kikuyu, Nairobi (*Crawshay*, *Anderson*), 3 ♂, 2 ♀, Njoro (*Cholmley*), 2 ♂, Nakutu (*Bodeker*), 1 ♂, Nakuru (*Bodeker*), 2 ♀. *Exp.* 30–40 millim.

1864. **Estigmene linea**, insert (syn.):—

Amsacta unistriga, Grunb. Densk. Med. Ges. Jena, xvi. p. 124, pl. iii. f. 8 (1910).

"Germ. S.W. Africa."

*1864 *b*. **Estigmene griseipennis.** (Plate LXII. fig. 18.)

Spilosoma griseipennis, Bartel, Iris, xvi. p. 193 (1903).

♂. Head and thorax brownish ochreous; palpi blackish above; antennæ with the branches blackish; tegulæ slightly tinged with fuscous, the edges yellowish; pectus tinged with brown; abdomen orange with dorsal black bands except at base, and a patch on terminal segment, the ventral surface suffused with brown. Wings uniform ochreous brown, the veins finely streaked with fuscous; hind wing with dark terminal line.

Hab. Angola, type † ♂ in Mus. Berlin. *Exp.* 40 millim.

1864 *c*. **Estigmene rothi.** (Plate LXII. fig. 19.)

Estigmene rothi, Roths. Nov. Zool. xvii. p. 163 (1910).

♂. Head, thorax, and abdomen ochreous tinged with brown; palpi and frons brown; antennæ with the branches blackish; legs brown. Fore wing ochreous tinged with brown; a streak of blackish scales along median nervure from before middle to just beyond angle of cell. Hind wing pale ochreous, the underside with the costal area deeper ochreous.

Hab. S. Nigeria, Warri (*Claydon*), 1 ♂, (*Roth*), type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

1866 *a*. **Estigmene internigralis.** (Plate LXI. fig. 20.)

Estigmene internigralis, Hmpsn. A. M. N. H. (7) xv. p. 447 (1905).

♂. Head and thorax dirty ochreous; palpi and frons mostly brown; tegulæ, stripes on patagia, and dorsum of thorax brown; pectus mostly brown; femora orange above, the tibiæ and tarsi streaked with brown; abdomen orange with some brown hair at base and dorsal series of black bands, the ventral surface ochreous. Fore wing ochreous white, more ochreous on costal area, the interspaces

from subcostal nervure to submedian fold fuscous black leaving ochreous streaks on the veins. Hind wing ochreous white with the interspaces fuscous black except towards base.

Hab. NATAL, 1 ♂ type. *Exp.* 44 millim.

1867. **Estigmene pura**, insert (syn.):—

Estigmene schraderi, Roths. Nov. Zool. xvii. p. 164 (1910).

ERITREA, Salomona (*Schrader*), type † ♂ in Coll. Rothschild.

1868. **Estigmene acrea** is the correct spelling, insert:—

Bombyx acria, Coquebert, Ill. Ins. Mus. Paris, i. p. 28, pl. vii. f. 5 (1799).
Diacrisia echo, Roths. Nov. Zool. xvii. p. 122 (1910), ♀ (nec ♂).

Estigmene arizonensis, Roths. Nov. Zool. xvii. p. 165 (1910).

A form from Arizona which differs from the form *mexicana* in the hind wing of the male always being white and both sexes having the wings more heavily spotted. Type † ♂, ♀ in Coll. Rothschild.

Estigmene columbiana, Roths. Nov. Zool. xvii. p. 166 (1910).

A form from Colombia with a terminal series of black spots and small discoidal spot only on both wings of male, the female with two minute discoidal black points and a minute black point above vein 1 only on fore wing. Type † ♂, ♀ in Coll. Rothschild.

1868*a*. **Estigmene metaxantha**, n. sp. (Plate LXIX. fig. 6.)

♂. Head orange, the antennæ and palpi black; thorax white, the tegulæ and patagia edged with orange, black spots on tegulæ, shoulders, and patagia; abdomen orange with dorsal black spots on three medial segments; pectus and legs orange, the tibiæ and tarsi black above; abdomen with lateral series of black points and sublateral points on three medial segments. Fore wing creamy white; a small black spot at base; the costal edge black to an antemedial black bar from costa to median nervure, three small antemedial spots from below the cell to inner margin; a medial series of black spots, angled outwards at median nervure; two black points on upper discocellular and points in and beyond lower angle of cell; postmedial line formed by a series of black bars and spots at costa and below vein 2, excurved to vein 4, then incurved; a spot beyond it on costa with two minute spots below it; a subterminal series of minute black spots consisting of pairs at the veins to vein 3, bent outwards to near termen at vein 5, and three spots further from termen between vein 2 and inner margin; a terminal series of small black spots from below apex to above tornus. Hind wing orange-yellow with a small black discoidal spot and minute subterminal spots at discal fold and above vein 1; cilia whitish. Underside of fore wing suffused with orange-yellow.

Hab. N.W. RHODESIA, Solwezi (*Dollman*), 1 ♂ type. *Exp.* 10 millim.

1869 *a*. Estigmene evadnê.

Amsacta evadne, Fawcett, P. Z. S. 1915, p. 93, pl. i. f. 4.

♀. Head and thorax white; antennæ blackish; palpi with some black above; fore legs brown in front, the mid tarsi brown, the hind tarsi ringed with brown; abdomen banded yellow and black-brown, the base, extremity, and ventral surface white, lateral and sublateral series of black spots. Fore wing white; a subbasal black point in the cell; antemedial points below the costa and cell and above vein 1, the point below the cell further from base; three points at lower angle of cell; a postmedial series of black points between veins 5 and 1, excurved to vein 3, then obliquely bent inwards; subterminal pairs of minute black points between veins 7 and 3, the points below vein 5 nearer the termen; a terminal series of black points between veins 6 and 2. Hind wing white; a black discoidal spot and small subterminal spots at discal and submedian folds and two towards tornus. Underside of fore wing with small black spots on each side of upper discocellular and subterminal points below vein 8 and above 7; hind wing with black discoidal spot and small subterminal spots below costa, at discal fold, and below vein 2 and above 1.

Hab. Br. E. Africa, Kedai (*Feather*), 1 ♀ type. *Exp.* 36 millim.

1870 *a*. Estigmene edlingeri. (Plate LXII. fig. 21.)

Spilosoma edlingeri, Bartel, Iris, xvi. p. 180 (1903).
Diacrisia albescens, Roths. Nov. Zool. xvii. p. 122 (1910).

Head and thorax pure white; palpi with the 3rd joint black above; antennæ with the branches black; fore tibiæ and tarsi striped with black; mid and hind tibiæ with the spurs banded with black, the former with black spot near extremity; mid and hind tarsi banded with black; abdomen dorsally orange with dorsal series of small black spots, the 1st and two terminal segments, and the ventral surface white. Wings pure white, the hind wing with minute dark discoidal point on upperside and discoidal point and two or three subterminal points on underside.

Hab. S. Nigeria, Onitsha (*Dudgeon*), 1 ♂, 2 ♀, Ogruga type † ♀ *albescens* in Coll. Rothschild; Cameroons, Bene, Yola. *Exp.*, ♂ 28, ♀ 44 millim.

1870 *b*. Estigmene flaviceps. (Plate LXII. fig. 22.)

Estigmene flaviceps, Hmpsn. A. M. N. H. (7) xix. p. 238 (1907).
Acantharctia aureacosta, Beth.-Baker, A. M. N. H. (8) vii. p. 538 (1911).

♂. Head orange-yellow; palpi and antennæ black; thorax white; pectus and legs orange-yellow, the tibiæ and tarsi striped with black; abdomen orange-yellow, the basal segment and ventral surface white, a dorsal series of black bands except at base and extremity, lateral series of black spots, and sublateral series of

points except at base and extremity. Fore wing white, the costal edge orange-yellow. Hind wing white.

Hab. Sierra Leone (*Quinton*), 2 ♂ type; Gold Coast, N. Territories (*Quinton*), 1 ♂; Portuguese W. Africa, Gunnal, type † ♂ *aureacosta* in Coll. Bethune-Baker. *Exp.* 36 millim.

*1875*a*. Estigmene cingulata. (Plate LXII. fig. 9.)

Estigmene perrotteti, cingulata, Roths. Nov. Zool. xvii. p. 166 (1910).

♂. Head and thorax black-brown, a bar between antennæ, stripe on outer edge of tegulæ and the edges of patagia white tinged with scarlet; some scarlet hair below base of wings; femora scarlet above; abdomen black-brown with narrow dorsal scarlet bands becoming confluent laterally. Fore wing black-brown with a broad white stripe from base below the cell and thence with an even curve to apex where it narrows; cilia pale scarlet. Hind wing pale scarlet; a black spot on upper discocellular conjoined to a patch on costa; a subterminal band from costa to just below vein 5 and patches below vein 3 and at vein 1.

Hab. Madras, Nilgiris, Ootacamund, type † ♂ in Coll. Rothschild. *Exp.* 42 millim.

Genus **DODIA**.

	Type.
Dodia, Dyar, J. N. Y. Ent. Soc. ix. p. 85 (1901)	*albertæ*.

Proboscis aborted, slight; palpi short, porrect, not reaching frons; eyes naked; antennæ of male with bristles and cilia; head and thorax clothed with short hair; fore tibiæ with terminal spine; hind tibiæ with two pairs of spurs; build slender. Fore wing broad; veins 3 and 5 from near angle of cell; 6 from upper angle; 7, 8, 9, 10 stalked; 8, 9 nearly to apex; 11 free. Hind wing with veins 3, 4 from angle of cell; 5 from near angle; 6, 7 stalked; 8 from middle of cell.

In key differs from *Estigmene* in the hind wing having veins 6, 7 stalked; the fore tibiæ with a spine at extremity instead of claws.

*1876*a*. Dodia albertæ.

Dodia albertæ, Dyar, J. N.Y. Ent. Soc. ix. p. 85 (1901).

♂. Grey. Fore wing semihyaline with only a faint waved whitish subterminal line, or suffused with whitish on basal half of wing leaving a curved grey subbasal band and a slightly waved

Fig. 94.—*Dodia albertæ*, ♂.

oblique medial band with some whitish irroration between it and subterminal line. Hind wing semihyaline.

Hab. Canada, Alberta, Calgary (*Dod*). *Exp.* 34–35 millim. This species is unknown to me.

1877. **Pericallia æquata** is from S. Celebes.

subsp. *lorquini*, Feld.

Hind wing of male with the basal two-thirds orange-yellow, female with broad medial orange-yellow band.

Hab. N. Celebes.

*1877 *a*. **Pericallia everetti.**

See *Pericallia everetti*, Roths. Nov. Zool. xvii. p. 167 (1910), & xviii. pl. 3. f. 20.

♂. Head and thorax dark brown; palpi with some yellow at base; tegulæ edged with yellow; pectus with yellow mixed; abdomen dark brown, the two subterminal segments with yellow lines, lateral yellow stripes and black spots, the ventral surface banded with yellow. Fore wing dark brown, the veins and submedian fold streaked with yellowish; a yellowish white bar at end of cell from costa to vein 5. Hind wing orange-yellow, the inner area black-brown; a medial maculate black-brown band expanding towards costa, widely below lower angle of cell and confluent in submedian fold with the broad terminal black-brown area with waved inner edge narrowing to tornus.

Hab. Celebes, Bonthain (*Everett*), type † ♂ in Coll. Rothschild. *Exp.* 44 millim.

1878 *a*. **Pericallia nephelistis.** (Plate LXII. fig. 10.)

Pericallia nephelistis, Hmpsn. A. M. N. H. (7) xix. p. 238 (1907).
Pericallia diluta, Weym. Deutsch. Ent. Zeit. 1908, p. 508 (fig.).

♀. Head and thorax grey mixed with fuscous brown; patagia, meso- and metathorax with paired blackish spots; pectus and legs yellow, the tibiæ and tarsi greyish, the latter banded with black; abdomen yellow with dorsal series of black patches except on two basal segments and lateral series of spots. Fore wing brownish grey mostly clouded with fuscous blotches and spots, some of them forming a subbasal band from costa to submedian fold, with two small spots beyond it in submedian interspace, an antemedial band angled outwards in cell, then oblique to vein 1, a medial patch in and below the cell connected with a patch on costa, some confluent marking on middle of inner margin; a discoidal patch confluent with a patch on costa, and some very irregular and partly confluent postmedial and subterminal spots; a series of small spots on termen and cilia. Hind wing pale yellow with discoidal blackish spot and point at lower angle of cell; two small spots on basal part of vein 2 and two irregular spots on vein 1; irregular subterminal patches from costa to vein 4, vein 3 to subterminal fold, and above tornus.

Hab. Angola, Bihé, 3 ♀ type. *Exp.* 52 millim.

*1878 *b*. **Pericallia hecate.**

Pericallia hecate, Fawcett, P. Z. S. 1916, p. 709, pl. i. f. 19.

♂. Head and thorax pale orange-yellow with a few black scales, the head with black streak; antennæ ringed with black; palpi

with the 2nd joint black above; abdomen pale orange-yellow banded with black; pectus, legs, and ventral surface of abdomen greyish ochreous slightly irrorated with black; femora orange above; tibiæ and tarsi banded with black; abdomen with lateral and sublateral series of small black spots. Fore wing thickly irrorated with black, whitish with the marginal areas pale orange-yellow; some slight black marks below basal part of costa; a black antemedial bar from costa and two diffused slightly waved narrow blackish bands from cell to inner margin; a narrow diffused blackish medial band, angled outwards at median nervure, then incurved; a diffused black discoidal spot with the discocellulars pale; a narrow diffused waved blackish postmedial band, slightly bent outwards below costa and inwardly oblique between veins 3 and 2; two narrow diffused dentate blackish subterminal bands; a terminal series of rather diffused black lunules. Hind wing pale orange-yellow; some blackish irroration on basal part of vein 1 and on inner margin; a small black spot on upper discocellular; a slightly waved black line from lower angle of cell to above inner margin; rather diffused and somewhat bifid subterminal black spots on veins 5 and 2 and above tornus; the underside with diffused sinuous blackish medial line, the postmedial line oblique to discal fold, then waved,

Hab. Br. E. Africa, Kedai (*Feather*), type † ♂ in Coll. Faweett. *Exp.* 50 millim.

1879. Pericallia transversa.

Head and thorax brownish white, the palpi, sides of frons, and antennæ blackish; the tegulæ in female and the patagia in both sexes with black spots, the dorsum of thorax and shoulders with black stripes; femora crimson above, the tibiæ with black stripes and the tarsi banded with black; abdomen crimson with dorsal and lateral series of black spots, anal tuft and ventral surface whitish, the medial segments with sublateral series of black spots.

Punjab, Murree, ♂, ♀ in Coll. Rothschild.

*1879 *a*. Pericallia puella.

Spilosoma puella, Staud. Stett. Ent. Zeit. xlviii. p. 85 (1887); id. Cat. Lep. pal. p. 365; Roths. Nov. Zool. xviii. pl. 6. f. 20; Seitz, Gr.-Schm. pal. ii. p. 446, pl. 56 *g*.

♂. Head and thorax white; palpi towards tips, lower part of frons, and antennæ blackish; patagia with blackish patches; pectus and legs suffused with blackish, the femora scarlet above, the tarsi ringed with white; abdomen scarlet with dorsal series of black bars, patch on terminal segment and lateral and sublateral series of spots, the ventral surface brownish white. Fore wing whitish suffused with brown; a subbasal black spot on costa; an antemedial curved series of four spots and two spots on inner margin; a spot at middle of cell conjoined to a spot on costa, three conjoined spots above and below median nervure and a double

spot on inner area sometimes joined to the outer antemedial spot; a wedge-shaped spot on costa at end of cell, minute spots in and beyond lower angle of cell, a bifid spot on vein 2 and oblique spot on inner area; an irregular subterminal spot on costa, minute spot below vein 2 and oblique spot near tornus; a small spot on costa just before apex and some spots on termen and the cilia. Hind wing grey-brown; the cilia ochreous white; the underside with the costal area ochreous white to beyond middle, a blackish spot on base of costa, curved bar from costa at middle of cell, stigma on upper discocellular, and faint subterminal spots above and below veins 7 and 5 and below vein 2.

Hab. W. Turkestan, Ferghana, Alai, Artcha-Badu in Coll. Rothschild. *Exp.* 38 millim.

*1883 *a*. ? Pericallia mussoti.

Arctia mussoti, Oberth. Launay, Hist. Miss. Thibet, ii. p. 413, pl. f. 9 (1903).

Head and thorax brown, antennæ whitish towards base, the edges of patagia and dorsum of thorax with whitish stripes; legs white and grey; abdomen brown with crimson dorsal bands, ventral white bands and crimson lateral stripes. Fore wing brown; a rather triangular yellowish white patch below basal part of cell; small obliquely-placed medial spots on costa and in cell and a triangular spot below the cell; a spot beyond upper angle of cell, and wedge-shaped postmedial patch in submedian interspace; an oblique subterminal bar from costa and irregular bidentate mark between veins 5 and 2. Hind wing orange-red; a black discoidal bar angled inwards on median nervure, spot at middle of vein 1, irregular patch on apical area, and spots just before termen below veins 3 and 2; a fine terminal line. Underside paler; fore wing with the pectus pinkish white.

Hab. W China, Ta-chien-lu. *Exp.* 36 millim. This species is unknown to me.

*1887. Pericallia magna. (Plate LXII. fig. 11.)

Diacrisia magna, Wileman, Entom. xliii. p. 136 (1910).

♂. Head, tegulæ, and patagia creamy white; palpi black-brown, the base and 2nd joint in front crimson; frons and antennæ black; tegulæ slightly edged with crimson and with large dorsal black spots, the patagia with black spots; dorsum of thorax black-brown; pectus tinged with fulvous and with blackish stripes below the wings; fore coxæ with blackish patches; legs blackish, the femora crimson above; abdomen crimson, some hair at base of sides and the ventral surface creamy white, a dorsal maculate black-brown fascia except on terminal segments, a lateral series of small spots and sublateral spots on medial segments. Fore wing black-brown; a creamy white fascia below costa to end of cell, expanding into upper part of cell in its terminal half, interrupted by the black-brown discoidal bar, then continued above and

below vein 6 as a wedge-shaped mark, with oblique band from its upper edge to apical part of costa, the outer edge of this band slightly notched at middle; a creamy white fascia from base of inner margin below median nervure to end of cell with sinuous lower edge, then oblique below vein 3 to termen; an oblique wedge-shaped mark from termen above middle; cilia creamy white, black at middle and towards apex. Hind wing creamy white; a black discoidal lunule, subterminal spots on vein 5, below vein 2 and on vein 1, and small terminal spots on vein 6 and in submedian fold.

Hab. Formosa, Rantaizan (*Wileman*), type † ♂ in Coll. Wileman. *Exp.* 72 millim.

1888. Pericallia galactina.

ab. 1. Should be called *trigonalis* which has priority over *cana*.

1892. Pericallia obliquifascia.

Larva. Piepers, Tijd. v. Ent. xlviii. p. 191, pl. vii. ff. 4, 5 (1905).

Thickly clothed with grey-brown hairs, the ground-colour grey or black mixed with yellow; dorsal and subdorsal lines yellowish white; stigmata white, marked with red above.

The young larva has the dorsal line white sometimes marked with small red spots; some of the abdominal somites with subdorsal black warts with black hairs rising from them and with lateral pink patches near them; stigmata marked with orange; head black with small yellow patches. Food-plants: *Colocasia antiquorum* and *Lantana camera*.

Pupa dark in a silken cocoon mixed with hair.

*1892 *a*. Pericallia villiami.

Pericallia villiami, Roths. Nov. Zool. xvii. p. 170 (1910), & xviii. pl. 3. ff. 16, 28.

♂. Head and thorax black, the vertex of head white with a black spot; tegulæ and patagia with white stripes; pectus and legs black-brown; abdomen orange-yellow with dorsal series of black bars and patch on anal segment, lateral series of black spots, the ventral surface black-brown. Fore wing black; a broad white fascia in submedian interspace from base to beyond middle where it is met by an oblique fascia from apex, both with sinuous edges; a round white subterminal spot above vein 3 with minute spots above and below it and a minute spot above vein 6. Hind wing yellowish white; a small blackish spot on discocellulars and small spot below extremity of vein 1; the underside with the costal area black-brown except at base and apex, conjoined to the discoidal spot, a striga at apex.

♀. Fore wing with the oblique band narrower, a small subterminal spot above vein 3 only; hind wing yellow, the discoidal spot larger; a black-brown patch on apical part of termen, round

subterminal spot on vein 2, oblique mark on extremity of vein 1 and the termen and cilia black-brown; the underside with the costal area black-brown except towards base where there is a subbasal spot on the costa.

Hab. Java, Mt. Gedé, Palaboean, Djember; Bali (*Doherty*), type † ♂ in Coll. Rothschild. *Exp.*, ♂ 36, ♀ 38 millim.

1893. Pericallia integra.

♀. Schultze, Phil. Journ. Sci. iii. p. 30, pl. i. f. 5 (1909).

Hind wing yellow with three black patches on terminal area and the cilia black.

*1895 *a*. Pericallia pannycha. (Plate LXIX. fig. 4.)

Pericallia pannycha, Dyar, Pr. U.S. Nat. Mus. liv. p. 341 (1918).

♀. Head, thorax, and abdomen black glossed with blue, some crimson scales behind the eyes and at base of tegulæ. Fore wing dull black tinged with blue-grey, the veins rather paler. Hind wing deep blue-black with the veins pale.

Hab. Mexico (*Müller*). *Exp.* 42 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

1896. Pericallia matronula, insert :—

ab. *paucigutta*, Schultz, Ent. Zeitschr. Guben, xviii. p. 124 (1905).
Fore wing with the yellow spots reduced.

ab. *multimaculata*, Schultz, Ent. Zeitschr. Guben, xviii. p. 126 (1905).
Fore wing with the yellow spots increased.

ab. *marmorata*, Schultz, Ent. Zeitschr. Guben, xviii. p. 124 (1905).
Fore wing with the spots large.

ab. *dissoluta*, Schultz, Ent. Zeitschr. Guben, xviii. p. 126 (1905).
Fore wing with the yellow spots separate.

ab. *haliciaca*, Schultz, Soc. Ent. Zurich, xv. p. 113 (1900).
Fore wing with the yellow spots near base confluent.

ab. *concreta*, Schultz, Ent. Zeitschr. Guben, xviii. p. 125 (1905).
Fore wing with the yellow spots near apex confluent.

ab. *centralasiæ*, Schultz, Ent. Zeitschr. Guben, xviii. p. 126 (1905).
Fore wing with the confluent yellow spots near apex increased.

ab. *nigrospicalis*, Schultz, Ent. Zeitschr. Guben, xviii. p. 124 (1905).
Hind wing with the extra black spot at apex.

ab. *nigrostriata*, Schultz, Ent. Zeitschr. Guben, xviii. p. 124 (1905).
Hind wing with the black spots forming bands.

ab. *opaca*, Schultz, Ent. Zeitschr. Guben, xviii. p. 124 (1905).
Hind wing with the black bands confluent.

ab. *serena*, Schultz, Ent. Zeitschr. Guben, xviii. p. 126 (1905).
Hind wing with the inner maculate band almost or entirely absent.

ab. *agassizi*, Schultz ? ined. Seitz, Gr.-Schm. pal. ii. p. 96 (1910).
græseri, Schultz, Ent. Zeitschr. Guben, xviii. p. 126 (1905).
Fore wing with complete yellow band from costa to termen.

ab. *luteotincta*, Schultz, Ent. Zeitschr. Guben, xviii. p. 124 (1905).
Fore wing orange.

1897 *a*. Pericallia coorgensis. (Plate LXII. fig. 22.)

Pericallia coorgensis, Hmpsn. Nov. Zool. xxiii. p. 238 (1916).

♀. Head white tinged with crimson, the antennæ, frons, and palpi dark brown, the antennæ with the basal joint crimson and some white at base of shaft; thorax dark brown, the tegulæ white with quadrate brown patch and some crimson below, the patagia white with brown spot; coxæ with crimson patches, the femora crimson above; abdomen crimson with dark spot at base, then a series of bands and a patch on anal segment, the ventral surface dark brown confluent with lateral series of spots, and with slight ventral scarlet bars on median segments. Fore wing chocolate-brown; a white fascia from base below the cell, beyond the lower angle obliquely bent upwards to costa, extending to inner margin and with a slight crimson tinge at base, emitting projections into the cell near base and before and at middle and on lower side before and beyond middle, the oblique part with slightly waved edges and with a slight crimson tinge at costa; a wedge-shaped white patch slightly tinged with crimson on apical part of costa and a semicircular patch at middle. Hind wing crimson with slight brown marks at and above upper angle of cell and subterminal chocolate-brown patches conjoined by bars below costa, at middle, and above tornus, the apical and tornal patches touching the termen. Underside of fore wing with the fascia crimson except at costa; hind wing with irregular brown patch at middle of costa connected with the apical patch which extends along the costa for a short distance.

Hab. Madras, Coorg, Somwarpat (*Hannyngton*), 1 ♀ type. *Exp.* 50 millim.

*1901 *a*. Pericallia pasinuntia.

Bombyx pasinuntia, Stoll, Pap. Exot. iv. p. 149, pl. 367. fig. H (1782).

♀. Head and thorax creamy white; palpi scarlet except at base; frons brown at sides and with scarlet streak at middle; antennæ brown and with brown spots behind them; tegulæ with black spots and slightly edged with scarlet; shoulders and pro-, meso-, and metathorax with paired black spots; pectus and legs scarlet, the fore tibiæ and tarsi ochreous in front; abdomen scarlet with lateral series of small black spots except at base. Fore wing creamy white; a blackish spot at base; a red-brown subbasal band forming a diffused fascia on costal area and not reaching inner margin; the inner margin with a red-brown fascia from near base to the medial line; a sinuous red-brown antemedial band, interrupted at median nervure, then excurved; an oblique red-brown

medial band, bent inwards to costa, expanding and enclosing a creamy white spot at end of cell; a subterminal triangular patch with rather dentate edges on costa and a band with dentate edges from vein 3 to tornus; a red-brown patch with dentate inner edge, at apex connected by streaks on the veins with the subterminal patch, and an irregular terminal patch between veins 5 and 2 connected by streaks on the veins with the medial and subterminal bands. Hind wing deep scarlet. Underside of fore wing scarlet with the brownish bands faint.

Hab. Amboina, Saparoea, Oeliavers (*Martin*), in Coll. Rothschild. *Exp.* 66 millim.

*1901 *b*. Pericallia whiteheadi.

Pericallia whiteheadi, Roths. Nov. Zool. xvii. p. 170 (1910), & xviii. pl. 3. f. 22.

♀. Head yellow with black streaks near sides of frons and spot between antennæ; thorax creamy white, the tegulæ edged with yellow, the tegulæ dorsally and at sides, the patagia, pro-, meso-, and metathorax with paired black spots; pectus and legs orange-yellow, the legs streaked with brown; abdomen orange-yellow with dorsal and lateral series of small black spots except at extremity and subiateral series except at base. Fore wing reddish brown; the base obliquely buff with small black spot at base of cell; a rather irregular subbasal buff patch from just above subcostal nervure to just below vein 1; a round buff medial patch from below costa to just below median nervure; a patch on costa at end of cell conjoined by a small spot at its outer angle to an oblique fascia to just before termen between veins 3 and 2, its outer edge dentate at the veins, its lower extremity giving off a small hook and with a maculate band from it at lower angle of cell to below vein 1 with a small brown spot on it at lower angle of cell; a round brown patch at apex. Hind wing orange-yellow; a curved red-brown band from apical part of costa to termen at vein 5, a terminal patch from above vein 2 to tornus and the termen and cilia brown.

Hab. Philippines, Luzon, Cape Engano (*Whitehead*), type † ♀ in Coll. Rothschild. *Exp.* 54 millim.

*1906 *a*. Ecpantheria braziliensis.
(Plate LXII. figs. 13 ♂, 14 ♀.)

Ecpantheria mus, braziliensis, Roths. Nov. Zool. xvii. p. 172 (1910).

♂. Head white; palpi and sides of frons black; antennæ black except towards base; thorax white tinged with brown, the tegulæ with pairs of black streaks filled in with pale brown, the patagia with large wedge-shaped brownish patches defined by black, the dorsum with pair of brownish fasciæ defined by black streaks; pectus and legs white, the tibiæ ringed with black, the tarsi black ringed with white, abdomen white, the terminal half blue-black with the anal tuft white, the ventral surface white, lateral

and sublateral series of small black spots. Fore wing hyaline, the costal and inner areas white with black annuli filled in with brownish; a subbasal annulus on costa and angled mark below the cell; antemedial, medial, postmedial, and subterminal annuli on costa and pairs of annuli on inner area; a black streak at origin of vein 2 and a minute subterminal streak in discal fold; a terminal series of black striæ with spots beyond them on the cilia. Hind wing with the costal half hyaline with the margins white, the inner half white; a minute discoidal black point and points on termen above and below vein 5; the underside with antemedial, postmedial, and subterminal black spots on costa.

♀. Head tinged with brown; abdomen with the basal segment only white, a ventral series of black spots; fore wing not hyaline and suffused with pale brown, the series of black annuli complete and filled in with brown, the antemedial and medial series curved and with large patches at costa, a terminal series of annulate spots with elongate marks above and below vein 7; hind wing fuscous brown, the base and costal area whitish with dark postmedial and subterminal bars, a terminal whitish band from apex to vein 1 with series of small black spots on termen; the underside with subbasal black point on costa, paired medial and postmedial spots and an apical spot, the terminal band reduced from vein 6 to 4 to white streaks on the extremities of the veins.

Hab. Brazil, Castro Paraña (*D. Jones*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 54, ♀ 68 millim.

*1906 *b*. Ecpantheria cennedyi. (Plate LXIII. fig. 1.)

Ecpantheria kennedyi, Roths. Nov. Zool. xvii. p. 172 (1910).

♂. Head white; palpi and frons blackish; antennæ blackish, white towards base; thorax brownish grey, the tegulæ with pairs of black streaks, the patagia with bluish black fasciæ, the vertex with pair of bluish black streaks; pectus and legs white, the tibiæ and tarsi banded with blue-black; abdomen white, the terminal half dorsally blue-black with the anal tuft white. Fore wing white, the terminal half hyaline except costal and inner areas; a black point at base; subbasal black spot on costa with slight white centre and angled mark below the cell; an antemedial black annulus on costa, minute annulus below the cell and pair of annuli on inner area; a medial annulus on costa, two obsolescent annuli in cell, a pair above and below vein 2, and two annuli on inner area; a small black discoidal lunule; a postmedial annulus on costa and pair on inner area with black point above them; a subterminal black spot on costa, a pair of minute annuli on inner area with black point above them and small spot in discal fold; a terminal series of small black spots except towards apex. Hind wing with the costal half hyaline, the margins white, the inner half white; a small black discoidal spot and terminal point at discal fold; the underside with medial black spot on costa.

Hab. Brazil, Minas Geraes, Preto, type † ♂ in Coll. Rothschild. *Exp.* 52 millim.

1909. **Ecpantheria læta**, del. *E. præclara.*

1909 *a*. **Ecpantheria præclara.**

Ecpantheria præclara, Oberth. Ét. Ent. vi. p. 111, pl. 19. f. 1 (1881).
Ecpantheria theophila, Dogn. Ann. Soc. Ent. Belg. xlvi. p. 233 (1902).

♂. Head and thorax yellow; palpi, frons, antennæ, paired patches on tegulæ, patagia and mesothorax, and a patch on metathorax dark brown tinged with greenish; front and sides of pectus, extremity of femora and tibiæ and tarsi dark brown tinged with green; abdomen orange, the 1st three segments dorsally clothed with brown hair followed by brilliant blue-black bands, lateral series of blue-black spots, ventral bands on the two basal and terminal segments with some sublateral marks between them. Fore wing yellow, the veins orange; an olive-brown point at base; subbasal spots on costa and below cell and a slight streak below vein 1; an antemedial spot on costa and oblique series of three small spots between cell and inner margin; a medial series of six spots, oblique below the cell; a small elliptical discoidal spot; a postmedial spot on costa followed by a series of small spots strongly incurved below vein 4; a subterminal series of four large irregular spots bisected by the orange veins and a small spot below vein 4; a terminal series of short streaks on each side of the veins from apex to vein 4, and small spots below veins 3 and 2. Hind wing yellow, the inner area orange; small black spots below costa near apex and at extremity of lobe; the underside with subbasal, medial, and postmedial small paired spots below costa.

♀. Ground-colour of head and thorax white, the markings rather pale brown; abdomen with complete series of bands on ventral surface; fore wing white, the veins white, the markings rather larger; hind wing brown tinged with blue, leaving some yellow on costa, short lines from costa just before and beyond end of cell, some irregular postmedial marks in submedian interspace, and a maculate band just before termen, connected with termen from apex to vein 2, then becoming terminal and ending at vein 1.

Hab. Colombia, Bogotá, Popayan, type † ♂, ♀ *theophila* in Coll. Dognin, R. Siato, Slopes of Choco, 1 ♂. *Exp.*, ♂ 56, ♀ 70 millim.

*1909 *b*. **Ecpantheria euripides.** (Plate LXIII. fig. 2.)

Ecpantheria euripides, Dyar, Pr. U.S. Nat. Mus. xlii. p. 56 (1912).

♂. Head blue-black, the vertex yellowish white; tegulæ blue-black with narrow orange edges; thorax greenish black, the patagia with orange edges; legs black; abdomen orange with subdorsal series of small black spots except on three basal segments, the extremity black, lateral series of spots and ventral series of bands. Fore wing creamy white, the interspaces almost entirely occupied by series of quadrate black patches and spots leaving white streaks on the veins and narrow bands; the base of inner margin creamy

white; two narrow antemedial creamy white bands, the 1st curved, the 2nd slightly angled on median nervure and bent outwards to inner margin; a slight streak in end of cell and discoidal striga; a patch on costa above end of cell with a narrow band arising from it, incurved below lower angle of cell, closely followed by a narrow postmedial band incurved below vein 4; a narrow subterminal band from costa to below vein 5, emitting streaks to termen in the interspaces and an oblique line from the postmedial band at vein 3 to termen at vein 2. Hind wing orange-yellow; a blackish discoidal bar and small postmedial and subterminal spots on costa and in submedian fold.

Hab. Mexico (*Richie*). *Exp.* 56 millim. This species is unknown to me, figured from a drawing from type in the U.S. Nat. Mus.

1911. Ecpantheria magdalenæ, insert:—

Subsp. 1. ♀. Fore wing with the postmedial series of small spots complete; hind wing with the costal area yellow to beyond the cell interrupted by a dark discoidal bar, a yellow postmedial patch below vein 2 with a curved dark line on it, the yellow terminal band extending to apex with dark spots on termen from apex to vein 2.

Hab. Brazil, Rio Janeiro, Tijuca (*Wagner*), 1 ♀.

Subsp. 2. *steinbachi*, Roths. Nov. Zool. xvii. p. 172 (1910).

♂. Fore wing with the series of spots more developed and larger, especially the antemedial and postmedial series.

♀. Hind wing with the costal area yellow to beyond the cell where it expands into an oblique irregular wedge-shaped patch with an oblique dark bar on it, a clavate yellow streak in submedian fold, the terminal dark band extending to apex with dark spots on termen from apex to vein 2 varying in size.

Hab. Peru, El Porvenir 1 ♀; Bolivia, Buenavista (*Steinbach*), type † ♂ in Coll. Rothschild.

1913 *a*. Ecpantheria perplexa. (Plate LXIII. fig. 3.)

Ecpantheria perplexa, Schaus, A. M. N. H. (8) vii. p. 186 (1911).

♂. Head and thorax white, the tegulæ, patagia, and metathorax with annulate black marks, those on patagia wedge-shaped; lower part of frons and antennæ black; the femoro-tibial joints, extremity of fore tibiæ, and the fore and mid tarsi black, the hind tarsi black ringed with white; abdomen blue-black, the base brown with dorsal white streak, the 3rd segment with orange dorsal band followed by spots on next four segments, lateral orange streaks except at base, the anal tuft and ventral surface white with small sublateral black spots on medial segments and ventral black bars on two terminal segments. Fore wing white with series of black annuli; a subbasal annulus on costa and annulus further from base below the cell; an antemedial series of four annuli, the one on costa almost filled

in by black and with oblique striga from its lower edge, those below the cell obliquely placed; a black mark on costa above end of cell, oblique bar in upper angle, elongate mark in lower angle, small round spot beyond the cell, point beyond lower angle, and oblique series of four annuli between lower angle and inner margin; a postmedial black spot on costa and series of eight annuli, the one above vein 6 nearer termen and the series oblique and sinuous below vein 4; a subterminal series of nine annuli, the one at costa and two on inner area filled in with blackish, the one above vein 6 reduced to a point and that below vein 6 wedge-shaped; a terminal series of eight small black spots, the spot above vein 6 elongate. Hind wing semihyaline white with diffused blackish medial band expanding on inner area to base and near tornus, a blackish mark on the produced tornus; the underside with ante- and postmedial black spots on costa, the former with fuscous striga from it extending into the cell.

Hab. Costa Rica, Sixola R. (*Schaus*), 1 ♂. *Exp.* 56 millim.

*1919 *a*. **Ecpantheria obtecta.** (Plate LXIII. fig. 4.)

Ecpantheria obtecta, Dogn. Ann. Soc. Ent. Belg. li. p. 228 (1907).

♂. Head and thorax grey-brown mixed with yellowish; antennæ black; tegulæ at middle and sides and patagia above with slight yellowish streaks; pectus and base of mid and hind legs greyish; fore tibiæ with the 1st joint, mid tibiæ near base and at extremity and 1st joint of tarsi, hind tibiæ at extremity and 1st three joints of tarsus ringed with white; abdomen brownish, the terminal half tinged with blue, the 4th to 7th segments with dorsal orange spots, lateral orange-red fasciæ, the ventral surface white with ventral series of black spots. Fore wing white with grey markings defined by black; an irregular patch at base from costa to vein 1, angled outwards at median nervure and with black line on it defined by yellow on inner side, angled outwards at median nervure; a curved antemedial series of small spots, the costal spot irregular; a medial series of large irregular spots, with streak-like spot at median nervure forked at lower angle of cell, and two elongate spots above inner margin, a small spot on costa beyond it, two beyond the cell and one below vein 2; a postmedial series of small spots with elongate spots above vein 5 and double spots above veins 4, 3 ending at tornus; a series of small spots just before termen except at tornus, the spots towards apex irregular. Hind wing wholly white; the underside with oblique antemedial spot from costa and medial bar from costa to upper angle of cell.

Hab. Argentina, Tucuman, type † ♂ in Coll. Dognin. *Exp.* 38 millim.

*1922 *a*. **Ecpantheria dognini.** (Plate LXIII. figs. 5 ♂, 6 ♀.)

Ecpantheria dognini, Roths. Nov. Zool. xvii. p. 173 (1910).

♂. Head and thorax greyish white; palpi, frons, and antennæ black; the tegulæ with brown annuli filled in with grey-brown,

the patagia with similar wedge-shaped patches, the pro- and mesothorax with similar oblique bars and the metathorax with blackish spots; pectus and legs white with brown stripes at sides, the fore and mid tibiæ barred with black, the tarsi blue-black, the hind legs with the femoro-tibial joint black; abdomen blue-black, brown towards base, the 4th segment with pair of oblique dorsal yellow streaks dilated in front, the two following segments with V-shaped marks, a yellow lateral stripe, the ventral surface white. Fore wing white with series of annulate black spots filled in with brownish, the terminal half semihyaline except on inner area; a subbasal brown spot on costa and oblique mark below the cell; an antemedial brown spot on costa and series of four annuli, oblique below the cell; a medial brown spot on costa, small annulus in upper part of cell, elongate mark in lower angle and oblique series of four annuli below the cell; a dark discoidal mark with white striga on it; oblique postmedial and subterminal series of annuli, almost obsolete on the hyaline area and filled in with brown at costa, the subterminal spot in discal fold elongate; a terminal series of annuli, obsolescent on inner side. Hind wing white, semihyaline except at margin; ante- and postmedial brown bars from costa and spot near apex, a streak on inner area to beyond middle and subterminal spot on vein 1.

♀. Thorax with the annuli not filled in with brown, the metathorax with annuli; abdomen without the yellow dorsal marks; fore wing with the terminal area not hyaline and with the annuli well developed, the spots on costa not filled in with brown, a wedge-shaped annulus beyond lower angle of cell, the postmedial series irregular and the spots between veins 5 and 3 displaced outwards; hind wing with the inner half mostly suffused with fuscous, a subterminal series of annuli with points below vein 7 and spots on termen between veins 7 and 3.

Hab. Brazil, Rio Janeiro, type † ♂ in Coll. Rothschild, Petropolis, type † ♀. *Exp.*, ♂ 66, ♀ 78 millim.

*1926 *a*. Ecpantheria testacea. (Plate LXIII. figs. 7 ♂, 8 ♀.)

Ecpantheria testacea, Roths. Nov. Zool. xvii. p. 173 (1910).

♂. Head and thorax ochreous white; frons and antennæ except at base black; patagia with black annuli, the pro-, meso-, and metathorax with pairs of small black spots; extremities of tibiæ and the tarsi blackish; abdomen blue-black irrorated with white, the base brownish white, the extremity and ventral surface white, a dorsal series of yellow spots on medial segments. Fore wing ochreous white with series of black annuli, the terminal area somewhat semihyaline except towards inner margin with the annuli obsolescent; subbasal annuli below costa and cell; a curved antemedial series of six annuli; a blackish discoidal spot with annulus above it on costa and oblique series of four annuli below it; a postmedial series of nine annuli, oblique below vein 4; a subterminal series of nine annuli, the annulus in discal fold elongate; a terminal series of

obsolescent annuli. Hind wing hyaline, the inner area whitish suffused with brown except at inner margin and tornus; the underside with blackish discoidal striga, bar-shaped annulus from middle of costa and postmedial and subterminal annuli on costa.

♀. Frons ochreous white with brown spots above; abdomen dorsally with more white irroration, with yellow bracket-shaped bars on 2nd to 5th segments and streak on 6th; fore wing with the annulate bands less prominent, the medial series nearer base and with two elongate marks in the cell instead of the blackish discoidal patch, the terminal area not semihyaline and with the annuli entire; hind wing ochreous white with less brown on inner area, a subterminal annulate band and annuli on termen between veins 7 and 3.

Hab. PERU, R. Inambari, La Oroya (*Ockenden*), type † ♂ in Coll. Rothschild, Carabaya, La Union, Pozuzu, Chanchamayo. *Exp.*, ♂ 52, ♀ 58 millim.

1926 *b*. **Ecpantheria obsolescens.** (Plate LXIII. figs. 9 ♂, 10 ♀.)

Ecpantheria obsolescens, Hmpsn. Nov. Zool. xxiii. p. 238 (1916).

♂. Head and thorax brownish white, the tegulæ with small blackish spots, the patagia with elongate annuli, the pro- and metathorax with paired annuli; antennæ black except at base; frons at sides and above black-brown; fore femora at extremities, the mid and hind tibiæ at base and extremities and the tarsi black-brown; abdomen dark brown, the medial segments glossed with blue and irrorated with whitish, the extremity and ventral surface brownish white, dorsal orange spots on medial segments and lateral maculate fasciæ. Fore wing brownish white, the terminal area somewhat semihyaline except towards tornus; subbasal, antemedial, medial, and postmedial series of rather faint brown annuli, oblique from below costa, and two subterminal annuli on inner area. Hind wing white, the veins brownish, the inner area with fascia of dark brown hair. Underside of fore wing brownish white; hind wing with ante- and postmedial brown annuli on costa.

♀. Thorax without markings; fore wing with the terminal area more thickly scaled, a fuscous discoidal bar and complete subterminal and terminal series of annuli; hind wing with less dark brown hair on inner area.

Hab. PERU, Yahuarmayo, 1 ♂. 1 ♀ type, Chaquimayo (*Watkins*), 1 ♀. *Exp.*, ♂ 54, ♀ 58 millim.

*1927 *a*. **Ecpantheria cretacea.** (Plate LXIII. figs. 11 ♂, 12 ♀.)

Ecpantheria cretacea, Dogn. Het. Nouv. Am. Sud, v. p. 11 (1912).

♂. Head and thorax white slightly mixed with pale brownish; sides of frons and antennæ black; fore tibiæ with blackish streak, the mid and hind tibiæ black at base, the tarsi blackish mixed with white; abdomen orange, the base white, the other segments with dorsal black bands irrorated with white and lateral series of black

spots, the ventral surface white with slight brown segmental lines. Fore wing white; a subbasal series of slight annulate brown spots from costa to vein 1; an antemedial series of similar spots, oblique below the cell; a spot in end of cell angled inwards above median nervure, with annulus above it on costa, and oblique series of four annuli below the cell; a postmedial blackish spot on costa, followed by a series of annuli, the annulus in discal fold displaced inwards and the series oblique below vein 4; a subterminal series of annuli, the annulus above vein 6 minute and the series incurved towards inner margin; a terminal series of annuli except towards tornus, the spot above vein 6 elongate. Hind wing semihyaline white.

♀. Fore wing with bifid annulus in end of cell, the postmedial spot on costa annulate, the subterminal annulus above vein 6 large; hind wing with subterminal annuli between veins 6 and 4 and from vein 3 to tornus, and small terminal annuli between veins 6 and 2.

Hab. Colombia, Medina (*Fassl*), type † ♂, ♀ in Coll. Dognin. *Exp.*, ♂ 40, ♀ 46 millim.

*1927 *b*. Ecpantheria burmeisteri.

Ecpantheria burmeisteri, Roths. Nov. Zool. xvii. p. 172 (1910), & xviii. pl. 3. ff. 23, 24.

♂. Head and thorax white; frons black-brown; antennæ black; tegulæ, patagia at base and towards extremity, the pro- and meso-thorax with paired grey patches defined by black, the metathorax with pair of black spots; some black below shoulders and wings; tibiæ with grey spots defined by black, the tarsi ringed with black, the fore coxæ suffused with brown and bluish; abdomen orange with subdorsal series of bluish patches defined by black, meeting dorsally at base and on terminal segments, the ventral surface white. Fore wing white with series of grey spots defined by black, the terminal area semihyaline; a minute spot at base; subbasal spots at costa and below the cell; an antemedial series of four spots; a medial series of seven spots, oblique below the cell and joining the antemedial series at inner margin; a minute black spot in discal fold just beyond the cell; a postmedial series of nine spots incurved below vein 4; a subterminal series of nine spots, obsolescent except at costa and inner margin, the spot above vein 5 produced to a black streak; traces of a terminal series of spots. Hind wing white, the area from end of cell to termen hyaline; the underside with medial pair of grey spots defined by black on costa and in cell and postmedial pair on costa and below vein 8; some subterminal black points towards tornus.

♀. Metathorax with the patches grey defined by black; abdomen with the subdorsal patches larger, leaving small dorsal orange spots only; fore wing with the medial series of spots well separated from the outer medial series at inner margin, a large black discoidal lunule conjoined to the medial series of spots; the terminal area not semihyaline, the subterminal and terminal series of spots well-developed with some black on outer edge of the subterminal spots

towards tornus; hind wing white, a greyish streak at middle of vein 1, a fuscous discoidal spot and grey fascia in end of cell and from below it to a subterminal maculate band conjoined to four terminal spots between veins 7 and 2.

Hab. Argentina, Tucuman (*Steinbach*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 52, ♀ 62 millim.

1929. **Ecpantheria icasia**, insert :—

Ecpantheria trinitatis, Roths. Nov. Zool. xvii. p. 173 (1910).

A form from Trinidad; male with the subdorsal black spots on abdomen replaced by white bars; female without the dark edges to the white bars of abdomen. Type † ♂, ♀ in Coll. Rothschild.

*1935 *a*. **Ecpantheria oslari.**

Ecpantheria oslari, Roths. Nov. Zool. xvii. p. 174 (1910), & xviii. pl. 3. f. 29.

♂. Head and thorax white, the dorsum of thorax tinged with ochreous; palpi and frons at sides black; antennæ blackish except the shaft above; tegulæ, patagia, and pro- and metathorax with black annuli; fore femora and tibiæ orange on inner side, the tibiæ and tarsi with black spots, the fore coxæ with brown spots; abdomen orange-yellow with dorsal series of small black spots except at middle, lateral series of small black spots, the ventral surface white. Fore wing white with series of black annuli filled in with greyish; a subdorsal series of three annuli from costa to vein 1; an antemedial series of five annuli, conjoined except at submedian fold; a medial series of six annuli conjoined except at submedian fold, the annuli below the fold being displaced towards base; a discoidal patch formed of four conjoined annuli, two before and two beyond the discocellulars, the annulus beyond lower angle of cell minute; a postmedial series of nine annuli conjoined in parts, incurved below vein 4 and more strongly defined by black at costa; a subterminal series of ten annuli, the spot at costa filled in with black; a terminal series of seven annuli, the four towards apex lunulate. Hind wing white with blackish spot on costa towards apex; the underside with black spots on costa before middle and towards apex.

Hab. U.S.A., Texas, Brownsville, Esper Ranch, type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

1936. **Ecpantheria suffusa**, insert (syn.) :—

Arachnis semiclara, Stretch, J. N.Y. Ent. Soc. xiv. p. 124, pl. xii. f. 18 (1906).

U.S.A.

*1937 *a*. **Ecpantheria melanoleuca.**

Ecpantheria melanoleuca, Roths. Nov. Zool. xvii. p. 174 (1910), & xviii. pl. 3. f. 17.

♂. Head, thorax, and abdomen fuscous brown, the last with the ventral surface white except at extremity, with black ventral streak on medial segments. Fore wing white with series of dark brown spots defined by black; a basal patch formed by conjoined spots on

costa and below the cell, angled outwards below costa and at median nervure; an antemedial maculate band formed of five spots angled inwards in cell and outwards at median nervure, then oblique; conjoined medial spots on costa and in upper part of cell, a streak in lower extremity of cell and some brown just beyond the cell; a postmedial series of nine spots, incurved below the angle of cell and with a spot beyond it below vein 2; a subterminal series of nine spots, the spot above vein 5 elongate and extending to termen where it is hooked, the spots below veins 5 and 4 with spots beyond them; a terminal series of spots, the spot above vein 6 elongate and clavate. Hind wing white; a black discoidal point, brown mark on costa towards apex and subterminal points at discal fold and above and below vein 1; the underside with black bar from costa to discal fold at middle of cell, bar from costa to upper angle of cell, and patch on costa towards apex.

Hab. Bolivia, Santiago del Esterro, Suncho Corral (*Steinbach*), type † ♂ in Coll. Rothschild. *Exp.* 44 millim.

*1939. **Ecpantheria andromela.** (Plate LXIII. figs. 13 ♂, 14 ♀.)

Ecpantheria andromela, Dyar, Proc. Ent. Soc. Wash. xi. p. 20 (1909).

♂. Head white, the palpi, frons, and antennæ black; thorax white, the tegulæ and patagia black edged with white, the vertex with three large broad black patches; legs black, the extremities of mid and hind tibiæ and the proximal joints of hind tarsi marked with white; abdomen orange with long black hair on two basal segments, a dorsal series of black spots, the anal segment mostly black, the ventral surface white, black at sides, and a lateral series of small black spots. Fore wing black; an irregular white patch at base with black point on it; an irregular white antemedial patch in and below the cell where it is angled outwards, a white point beyond it in cell and another below it on inner margin; a postmedial triangular white patch on costa and incurved line from vein 2, where it is angled inwards, to inner margin where there is a white point before it; a wedge-shaped white mark from costa towards apex; an irregularly triangular white mark on termen below apex with two small black spots on it, and an irregularly quadrate white patch on termen below middle with one black point on it, connected with an oblique white striga from tornus; cilia white. Hind wing black, the cilia with some white below vein 3.

♀. Thorax with the black markings smaller, the patagia with small spot at base and wedge-shaped mark towards tips; abdomen dorsally black, ventrally black on medial segments; fore wing white with four small quadrately placed black spots on basal area; an antemedial black spot on costa followed by four spots angled outwards just below the cell; a broad medial black band interrupted by white on the vein, strongly angled outwards at lower angle of cell, two oblique black striæ beyond it at upper angle of cell and three small black spots beyond lower angle; postmedial line represented by a series of spots and bars,

strongly excurved between veins 5 and 3, then very oblique; a wedge-shaped subterminal patch from costa to vein 5 interrupted by white on the veins and an oblique series of bar-shaped patches from vein 5 to inner margin forming a strong band below vein 3; a terminal series of black bars, stronger at apex, middle, and tornus. Hind wing white; an oblique medial series of black spots from costa to submedian fold with two oblique bars beyond it at end of cell; a subterminal maculate sinuous band, narrowing somewhat at middle; a terminal series of small spots from apex to below vein 3.

Hab. Mexico, Mexico City (*Müller*). *Exp.*, ♂ 42, ♀ 50 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

1942. Arachnis picta, insert:—

Arachnis hampsoni, Dyar, Cat. Lep. N. Am. p. 86 (1902) for subsp. 2.

1948. Apantesis virgo.

Larva. Gibson, Can. Ent. xxxiv. p. 23 (1902).

Deep black with tufts of stout black bristles from the dorsal tubercles and reddish bristles from the sublateral and ventral tubercles; dorsal stripe bright yellow, distinct except on 2nd and 13th somites; head sparsely clothed with short and long black hairs; spiracles yellowish white.

The mature larva has the spiracles orange; the dorsal stripe creamy white and less prominent, in many specimens absent.

1950. Apantesis rectilinea, insert:—

Arctia oithona, Stretch, Lep. Rhop. & Het. p. 131 (1877),

which has precedence.

1951. Apantesis michabo.

Larva. Barnes & McD. Can. Ent. xlvii. p. 271.

Head black, the sutures of the clypeus strongly marked with white; body dull black dorsally blotched with velvety black; warts black; a broad pale yellow to orange-yellow dorsal stripe; subdorsal stripe represented by white spots on the anterior edge of each somite, sometimes lengthened posteriorly; a subspiracular waved fuscous-tinged white stripe; legs and prolegs pale orange; spiracles ochreous ringed with black; setæ long and whitish on dorsum with some very long black setæ from tubercle iii., tubercle ii. with very long white setæ pointing outwards and a shorter black one pointing upwards, the lateral setæ white; the setæ in the last two stages, except the subspiracular setæ, are mostly dull black and only slightly barbed, any white ones on the dorsal and lateral regions are very short.

In the early stages the body is pale grey in the 1st stage, in the 2nd stage black-brown dorsally, red-brown laterally; the 2nd stage

with broad dorsal white stripe, narrower subdorsal stripe, and slightly waved subspiracular stripe. Food-plants: lettuce and dandelion.

1952. Apantesis arge.

Larva. Seifert, J. N.Y. Ent. Soc. x. p. 1, & vars. pl. 1.

Dark grey to brown with darker shades; flesh-coloured dorsal, subdorsal, and substigmatal bands, the last angulate; clothed with long soft pale hairs.

1953. Apantesis ornata, insert (syn.) :—

Arctia shastanensis, French, Can. Ent. xxi. pp. 35, 162 (1889).

1959. Apantesis bolanderi, insert :—

Arctia blakei, Grote, Proc. Ent. Soc. Phil. iii. p. 523, pl. 5. f. 2 (1864); Barnes & McD. Contr. Nat. Hist. Lep. N. Amer. i. 4. pl. iii. ff. 1–8,

which has precedence.

No. 1963. *A. superba*, Stretch, is perhaps a race of *A. blacei* and *elongata*, Stretch, is its form with yellow hind wing.

No. 1964. *A. villiamsi*, Dodge, and its various races are also possibly forms of *A. blacei*, and *A. determinata*, Neum., is possibly the male of *villiamsi*.

1961 will stand as Apantesis nevadensis.

A. geneura Streck., of which *incorrupta* H. Edw. is a synonym, is a race of *A. nevadensis*, and *ochracea* Neum. = *sulphurica* Neum. is a form with yellow hind wings.

Larva. Barnes & McD. Can. Ent. xliv. p. 188.

1964 *a*. Apantesis tœle. (Plate LXIII. fig. 15.)

Apantesis tœle, Barnes & McD. Can. Ent. xlii. p. 208 (1910); id. Contr. Nat. Hist. Lep. N. Am. i. 4. pl. iii. f. 3 & xiii. f. 4.

Apantesis tœle, var. *ophir*, Barnes & McD. Can. Ent. xlii. p. 209 (1910); id. Contr. Nat. Hist. Lep. N. Am. i. 4. pl. iii. ff. 2, 9.

♂. Head and thorax black-brown; palpi fringed with pink hair; frons and vertex of head with pink patches; tegulæ and patagia with pink streaks at sides; coxæ and femora with some pink, the tibiæ streaked and tarsi ringed with pinkish white; abdomen black-brown with subdorsal crimson fasciæ becoming whitish on anal segment and ventral segmental whitish bands connected by a maculate streak. Fore wing brown, the disk black-brown; pinkish white subbasal, antemedial, and medial marks on costa and fasciæ in submedian fold and on inner margin to beyond middle; an oblique medial pinkish white bar across the cell and oblique postmedial line from vein 6 to the fascia in submedian fold; subterminal line, arising below the costa, strongly angled outwards at discal fold and vein 2 and inwards to the postmedial line at lower angle of cell and to the submedian fascia where it terminates.

Hind wing crimson pink, the costal area fuscous; a spot at upper angle of cell and slight diffused streaks below basal half of cell and vein 1; subterminal spots at discal fold and vein 2 conjoined to a terminal band with irregular inner edge.

ab. 1. *ophir*. Head and thorax without pink; fore wing with the medial bar extending to the submedian fascia.

Hab. U.S.A., Utah, Stockton (*Spalding*), 1 ♂, Eureka (*Spalding*), 3 ♂. *Exp.* 42 millim.

1965 *a*. Apantesis figurata.

Nemeophila figurata, Drury, Ill. Exot. Ent. ii. pl. 12. f. 4 (1773).
Euplagia ceramica, Hübn. Verz. p. 180 (1827).
Arctia f-pallida, Streck. Rep. Cheif, Eng. 1878, App. S. S. p. 1860, pl. 2. f. 3.
Arctia excelsa, Neum. Papilio, iii. p. 70 (1883).

is a distinct species.

ab. *pretiosa*, Nixon, Proc. Ent. Soc. Wash. xiii. p. 232 (1911).

Hind wing with the red replaced by yellow.

var. *moierra*, Dyar, Insec. Inscit. Menstr. ii. p. 161 (1914).—Texas.

Larva. Black to rusty brown, sometimes with yellow dorsal stripe. Food-plants: any low-growing plant.

1966. Apantesis vittata.

Egg. Gibson, Can. Ent. xxxii. p. 369 (1900), & Can. Ent. xxxiv. p. 50 (1902); Seifert, J. N.Y. Ent. Soc. x. p. 82, & vars. pl. xi.; Barnes & McD. Can. Ent. xliv. p. 189.

Semi-ovoid, shiny white, smooth.

Larva. Stage I. Dull cream-colour; head brownish black; each somite with transverse series of black tubercles bearing long black and silvery hairs and surrounded by pale brown.

Stage II. Blackish or pale brown with a pale dorsal stripe; a lateral series of brownish blotches; bristles on dorsal area black, on somites 4–11 with one or two whitish hairs, the other tubercles with blackish and whitish bristles; stigmata brown.

Stage III. Blackish with a pale yellowish stripe on dorsum.

Stage IV. The dorsal yellow stripe generally absent; the bristles of stigmatal and ventral tubercles rusty.

Stages V., VI. Somite 1 with reddish dorsal bristles turning down over face; dorsal stripe absent.

Stage VII. Some specimens with clear ochre yellow dorsal stripe expanding at middle of each somite, replaced in others by elongate spots.

Food-plants: *Taraxacum, Plantago.*

1967. Apantesis nais.

Larva. French, Papilio, ii. p. 179; Seifert, J. N.Y. Ent. Soc. x. p. 4 (1902), & vars. pl. ii.

Yellowish brown to blackish; dorsal stripe flesh-colour or reddish, often obscured on thoracic or terminal segments or quite obsolete;

hairs similarly coloured except those of anterior warts of 1st somite directed forward and those directed downwards from and from below the stigmata which are pale varying from brownish grey to rust red. Food-plants: *Taraxacum*, *Plantago*, *Rumex*, *Artemisia*.

*1967 *a*. Apantesis nundar. (Plate LXIII. fig. 16.)

Phragmatobia nundar, Dyar, J. N.Y. Ent. Soc. xv. p. 105 (1907).

♂. Head and thorax black; abdomen black with interrupted crimson lateral stripes. The wing black; a broad white fascia in submedian fold from base to near termen; postmedial line fine, white, curved, from costa to the fascia in submedian fold; cilia with whitish mixed. Hind wing crimson with a narrow terminal black band with sinuous inner edge; the underside with dark discoidal spot with some dark shading beyond it, the terminal band broader and diffused.

Hab. Mexico, Mexico City. *Exp.* 34 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

1968. Apantesis placentia, insert (syn.):—

Apantesis sociata, Barnes & McD. J. N.Y. Ent. Soc. xviii. p. 149 (1910); id. Contr. Nat. Hist. Lep. N. Am. i. 4. pl. xiii. f. 6.

New Mexico, Fort Wingate.

Larva. Barnes & McD. Can. Ent. xliii. p. 259; id. Can. Ent. xliv. p. 135.

Velvety black, sometimes slightly marbled with grey; an interrupted orange-red dorsal stripe, generally obsolete on thoracic somites and often quite absent; tubercles black and, except i., very large, rather conical from a quadrate base, shiny, with branches of stiff black setæ; spiracles black; prolegs pinkish with a few black setæ; head black, the palpi and mouth-parts flesh-coloured.

1968 *a*. Apantesis bicolor. (Plate LXIII. fig. 17.)

Apantesis bicolor, Hmpsn. A. M. N. H. (7) xiv. p. 166 (1904).

♂. Head and thorax black; abdomen scarlet with dorsal series of large partly conjoined quadrate black spots, a lateral series of somewhat triangular spots, the extremity and ventral surface black. Fore wing uniform black. Hind wing scarlet; the costal area and termen towards apex black; a subterminal black point below vein 2. Underside with short scarlet streaks on base of costa of both wings, the retinaculum scarlet.

Another specimen has three subterminal spots on hind wing; a third has the costal half of hind wing black; and a fourth has a crimson ring on neck, the fore wing with pale crimson fascia on costa to beyond middle, a small white spot at lower angle of cell, the cilia pale, the hind wing with the costal half pale.

Hab. Bahamas, Abaco (*P. A. Meers*), 4 ♂ type. *Exp.* 44 millim.

1969. **Apantesis fasciata**, del. *Chelonia oberthuri* & insert :—

ab. *pyrenaica*, Roths. Nov. Zool. xvii. p. 174 (1910), & xviii. pl. 3. f. 30.

♂. A form with the black markings of fore wing strongly developed, the bands confluent on inner area, the subterminal and terminal patches connected. Hind wing with medial black band from costa to submedian fold, the inner area not tinged with scarlet and the scarlet on terminal area reduced.

Spanish Pyrenees, Val d'Aras, type ♂ in Coll. Rothschild.

1969 *a*. **Apantesis dido**, trans. from *Diacrisia* no. 1816 & insert :—

Chelonia oberthuri. Oberth. Ét. Ent. xiii. p. 27, pl. 7. ff. 47, 48 (1890),

which is a local race of it. The fore wing sometimes has vein 10 stalked with 7, 8, 9.

Larva. Dark brown with black head and dense tufts of black hair, rather short behind the head, then becoming longer on dorsum.

*1970 *a*. **Codiosoma otero.** (Plate LXIII. fig. 18.)

Kodiosoma otero, Barnes, Can. Ent. xxxix. p. 10 (1907) ; id. Contr. Nat. Hist. Lep. N. Am. i. 4. pl. xiii. f. 2.

♀. Head and thorax black ; tegulæ whitish ; patagia with crimson streak on outer edge ; pectus crimson ; tarsi white on outer side ; abdomen crimson with dorsal series of black spots and the anal tuft black. Fore wing brownish black, the costal edge white ; a narrow incurved white band from costa beyond middle to tornus, slightly constricted at veins 4 and 1 ; cilia white. Hind wing crimson, the costa blackish ; a terminal blackish band narrowing to a point at submedian fold ; cilia whitish.

Hab. U.S.A., Arizona, Babaquivera Mts. *Exp.* 34 millim. This species is unknown to me, figured from a drawing from type in Coll. W. Barnes, it may be an aberration of the female of *C. fulva* var. *tricolor*.

*1971 *a*. **Hypomolis fassli.**

Hypomolis fassli, Roths. Nov. Zool. xviii. p. 158 (1911).

Antennæ of male bipectinate with moderate branches.

♂. Head, thorax, and abdomen black-brown. Fore wing hyaline

Fig. 95.—*Hypomolis fassli*, ♂. ½.

with a few brown scales, the veins and margins black-brown ; the

inner area suffused with brown to beyond middle. Hind wing hyaline with a few brown scales, the veins and margins black-brown.

Hab. Colombia, Monte Tolima (*Fassl*), type † ♂ in Coll Rothschild. *Exp.* 32 millim.

*1971 *b.* Hypomolis occendeni.

Diacrisia ockendeni, Roths. Nov. Zool. xvii. p. 120, pl. 14. f. 20 (1910).

♀. Head, thorax, and abdomen malachite-green; palpi at tips and frons whitish; antennæ slightly ringed with black except towards base; tarsi ringed with black; ventral surface of abdomen whitish. Fore wing uniform emerald-green. Hind wing pale semihyaline greenish.

Hab. Peru, Carabaya, Limbani (*Ockenden*), type † ♀ in Coll. Rothschild. *Exp.* 50 millim.

*1971 *c.* Hypomolis rothschildi. (Plate LXIV. fig. 1.)

Hypomolis rothschildi, Dogn. Hét. Nouv. Am. Sud, ii. p. 16 (1911).

♂. Head and thorax red-brown mixed with grey, the prothorax and outer edge of patagia with some purple-red hair; palpi and lower part of frons crimson; pectus whitish suffused with crimson; legs whitish, grey above; abdomen pale crimson. Fore wing pale grey, the costal edge crimson, the veins of terminal area tinged with crimson; some red-brown suffusion at base of median nervure and on middle of inner area; antemedial line slight, blackish, somewhat interrupted, oblique from costa to median nervure, then inwardly oblique; some crimson at lower angle of cell; medial line with black bar from costa, then slight, angled outwards to lower angle of cell, oblique to submedian fold and excurved at vein 1; postmedial line black, bent outwards below costa, angled inwards at discal fold, incurved and sinuous below vein 4; a fine crimson terminal line from apex to vein 2; cilia grey-white. Hind wing creamy white, the hair on inner margin slightly tinged with crimson.

Hab. Colombia, Monte Socorro, type † ♂ in Coll. Dognin. *Exp.* 38 millim.

*1972 *a.* Hypomolis virescens. (Plate LXIV. fig. 2.)

Automolis virescens, Roths. A. M. N. H. (8) iv. p. 224 (1909).

Head and thorax blue-green; palpi except at tips and frons yellow; antennæ black; pectus yellow; legs green, the tarsi tinged with black; abdomen green with some yellow hair at base, the ventral surface yellow. Fore wing semihyaline blue-green, the costal edge yellow. Hind wing pale semihyaline blue-green.

Hab. Peru, Carabaya, S. Domingo (*Ockenden*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 34, ♀ 44 millim.

*1972 *b.* Hypomolis thoracica.

Chlorhoda thoracica, Roths. Nov. Zool. xvii. p. 176 (1910), & xviii. pl. 3. ff. 6, 7.

♂. Head and thorax bright green; palpi crimson; sides of frons and antennæ black; neck with crimson ring; patagia edged with crimson; pectus crimson with pale green lateral patches; legs crimson, the femora striped with pale green, the tarsi ringed with black; abdomen crimson. Fore wing bright yellow-green, the costal edge yellow, the inner margin with crimson streak except towards base; oblique antemedial black striæ from costa and inner margin; postmedial line represented by a curved black striga below costa, a striga beyond upper angle of cell and oblique sinuous striga from submedian fold to inner margin. Hind wing pale greenish, the costal and inner areas yellow; cilia yellow.

♀. Fore wing with oblique postmedial black striga from below costa across upper angle of cell. Hind wing crimson, the area beyond the cell tinged with greenish between veins 7 and 2, a slight subterminal black mark below vein 2 and oblique striga on vein 1.

Hab. Peru, Carabaya, R. Huacamayo (*Ockenden*), type † ♂, ♀ in Coll. Rothschild, R. Inambara, La Oroya. *Exp.*, ♂ 42, ♀ 38 millim.

*1972 *c.* Hypomolis amabilis. (Plate LXX. fig. 10.)

Chlorhoda amabilis, Schaus, Trans. Am. Ent. Soc. xli. p. 3 (1915).

♂. Head and thorax emerald green, the antennæ blackish ringed with white, the palpi crimson, the tegulæ crimson in front, the patagia edged with crimson; abdomen, pectus, and legs crimson, the fore femora fringed with emerald-green hair, the tibiæ emerald green above, the tarsi ringed with black. Fore wing emerald-green, the costal edge and inner margin except towards base orange-yellow; antemedial black bars in upper part of cell and from vein 1 to inner margin, a small black spot at upper angle of cell and a small postmedial spot below vein 1. Hind wing yellow to end of cell, the inner area crimson, the terminal area whitish tinged with green. Underside of fore wing with the costal area orange-yellow, the area below the cell tinged with yellow to vein 2.

Hab. Brazil, Neu Friburg (*Arp*), type † ♂ in U.S. Nat. Mus. *Exp.* 34 millim.

1972 *d.* Hypomolis metarhoda. (Plate LXIV. figs. 3♂, 4♀.)

Hypomolis metarhoda, Dogn. Hét. Nouv. Am. Sud, i. p. 11 (1910).

♂. Head creamy white; palpi crimson, black at tips; frons crimson with some black-brown at sides; antennæ blackish except towards base; thorax red-brown, creamy white at sides; pectus crimson; legs fuscous, the tarsi ringed with crimson; abdomen pale crimson. Fore wing creamy white, the costal edge scarlet; patch of deep olive-brown suffusion on antemedial area from cell to

inner margin, slight olive-brown suffusion from apex to beyond the cell and on termen; antemedial line with small black spot at costa, then slight and oblique to median nervure near origin of vein 2, then inwardly oblique to inner margin; medial line with black mark at costa, then slight and oblique to lower angle of cell, then inwardly oblique and waved; postmedial line with small black spot at costa, bent outwards below costa, then oblique and strongly waved, angled inwards at vein 5 to near lower angle of cell. Hind wing pale crimson, the cilia yellow at tips. Underside of fore wing crimson with the terminal area yellow.

♀. Thorax whitish, the patagia edged with purplish pink, legs brown; fore wing suffused with fulvous yellow, leaving the costal area and inner area to beyond middle white with a purplish tinge, the lines obsolescent and without spots at costa, the antemedial line angled outwards at vein 1 and connected by a streak with the postmedial line which is much less waved and incurved at vein 1.

Hab. Ecuador, Loja, 1 ♂, 1 ♀. *Exp.*, ♂ 34, ♀ 44 millim. Type † in Coll. Dognin.

*1972 *e*. Hypomolis palmeri.

Hypomolis palmeri, Roths. Nov. Zool. xvii. p. 174 (1910), & xviii. pl. 3. f. 1.

♂. Head and thorax white, the latter with the vertex suffused with brown; palpi crimson, black at tips; pectus crimson, the legs fuscous; abdomen pale crimson. Fore wing violaceous white irrorated with pale olive except on costal area and base of inner area; the costal edge and subcostal nervure streaked with scarlet; antemedial line black, obolescent to submedian fold, then stronger, very acutely angled outwards on median nervure to origin of vein 2, and less strongly at vein 1, connected with postmedial line by streaks on vein 1 and inner margin; medial line with black spot at costa, then obsolescent to submedian fold, angled outwards at lower angle of cell, then oblique; a black point at upper angle of cell; postmedial line with small black spot at costa, excurved below costa and at veins 5, 4, then oblique to vein 1 and bent outwards to inner margin. Underside of fore wing crimson with the inner area and terminal area except at apex yellow.

♀. Thorax tinged with purplish; fore wing tinged with purplish red and with hardly any olive, the antemedial and medial lines stronger, the former hardly angled outwards at vein 1 and not connected by streaks with postmedial line; hind wing deep crimson.

Hab. Colombia (*Fassl*), ♂ in Coll. Dognin, Popayan, ♀ in Coll. Dognin, San Antonio (*Palmer*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 34, ♀ 44 millim.

Page 21. Genus **CHLORHODA.**

This should be placed after *Hypomolis*.

*1988 *a*. Chlorhoda viridis. (Plate LXIV. fig. 5.)

Idalus viridis, Druce, A. M. N. H. (8) iii. p. 458 (1909).

♂. Head and thorax apple-green; neck with crimson ring; patagia slightly edged with crimson; palpi crimson; antennæ

black except at base; pectus, legs, and abdomen crimson. Fore wing apple-green, the edges of costa and inner margin and the cilia yellow; a small antemedial black spot in cell and striga at inner margin; an oblique striga at upper angle of cell from costa to vein 6, and an incurved line from vein 2 to inner margin. Hind wing semihyaline yellowish, the inner area crimson, the cilia orange.

♀. Hind wing pale crimson, the inner area deeper crimson; subterminal black spots below vein 2 and at vein 1.

Hab. Peru, Chanchamayo, type † ♂ in Coll. Joicey, ♀ in Coll. Dognin. *Exp.* 46 millim.

*1988 *b*. Chlorhoda metamelæna. (Plate LXIV. fig. 6.)

Chlorhoda metamelæna, Dogn. Mém. Soc. Ent. Belg. xxii. p. 4 (1913).

♂. Head and thorax yellow-green, the patagia edged with crimson above; palpi crimson; frons black at sides; pectus and legs crimson, the fore femora and tibiæ towards extremity green on outer side, the tarsi banded with black; abdomen deep crimson, the ventral surface pale crimson. Fore wing yellow-green, the costal edge pale crimson, the inner margin narrowly yellow; an antemedial black point below costa, small triangular spot in cell, and oblique striga to inner margin; an incurved postmedial black line from costa to vein 6 and line from vein 2 to inner margin, incurved to vein 1, then excurved. Hind wing crimson, the area from the cell and vein 5 to vein 1 black and the terminal area black except at apex. Underside of fore wing suffused with crimson to the postmedial line which forms a diffused black patch from above vein 2 to inner margin.

Hind wing with veins 3 and 5 shortly stalked, 4 absent.

Hab. Colombia, Tolima (*Fassl*), type † ♂ in Coll. Dognin. *Exp.* 30 millm.

Genus **PALÆOMOLIS**

Type.

Palæomolis, Hmpsn. A. M. N. H. (8) iv. p. 362 (1909) ..... *purpurascens*.

Proboscis absent; palpi porrect, extending to just beyond the large frontal tuft of hair and fringed with long hair below; eyes large, round; antennæ of male ciliated; head and thorax clothed with long hair; tibiæ fringed with long hair, the hind tibia with two pairs of spurs; abdomen clothed with long hair. Fore wing with the apex rounded, the termen evenly curved; vein 3 from near angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with vein 3 from near angle of cell; 5 from just above angle; 6, 7 from upper angle; 8 from middle of cell.

In key differs from *Apantesis* in the proboscis being absent.

1972*f*. Palæomolis purpurascens.

Palæomolis purpurascens, Hmpsn. A. M. N. H. (8) iv. p. 363 (1909); Roths. Nov. Zool. xviii. pl. 3. f. 2.

♂. Head and thorax pale purple mixed with pinkish; palpi crimson; frons tinged with crimson; tegulæ and patagia slightly edged with crimson above; pectus and legs crimson, the tibiæ

fringed with pale purple hair; abdomen pale crimson. Fore wing pale olive-yellow, the costal area except at apex and the medial area below the cell pale purple; the veins and costa streaked with crimson, the termen deeper yellow, the inner margin with a fine black streak on medial area; antemedial and medial fine black lines oblique from

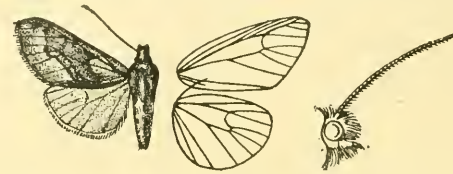

Fig. 96.—*Palæomolis purpurascens*, ♂. ½.

costa to median nervure, then inwardly oblique and sinuous; a fine black postmedial line, slightly excurved below costa and incurved at discal fold, oblique and slightly sinuous below vein 4; cilia whitish at tips. Hind wing yellowish white. Underside of fore wing yellow with the costal area crimson; hind wing yellowish white with the costal area yellow.

Hab. S.E. Peru, Agualani (*Ockenden*), 2 ♂ type. *Exp.* 36 millim.

1972 *g*. Palæomolis metacauta. (Plate LXIV. fig. 7.)

Palæomolis metacauta, Dogn. Hét. Nouv. Am. Sud, i. p. 11 (1910).

♂. Head and thorax whitish mixed with dark brown; palpi crimson, black at tips; frons black-brown; pectus brown, crimson ventrally; legs brown; abdomen crimson. Fore wing purplish white almost entirely suffused with dark brown, the costal edge dull scarlet with some purple suffusion below it; antemedial line with black spot at costa, then indistinct, angled outwards at median nervure, then oblique; medial line indistinct, with blackish spot at costa, angled outwards at median nervure, then oblique and excurved to inner margin; postmedial line blackish, excurved from below costa to vein 4, then oblique; cilia black-brown. Hind wing yellow suffused with scarlet, the cilia brown. Underside of fore wing scarlet irrorated with dark brown except on inner area, the base of costa black-brown, a black discoidal spot; hind wing with slight brown irroration on costal area, a black discoidal spot.

Hab. Colombia, San Antonio (*Fassl*), 2 ♂, type† ♂ in Coll. Dognin. *Exp.* 30–38 millim.

1972 *h*. Palæomolis hampsoni.

Palæomolis hampsoni, Roths. Nov. Zool. xvii. p. 175 (1910), & xviii. pl. 3. f. 4.

♂. Head and thorax purplish white mixed with purplish brown; palpi crimson; frons dark brown at sides; pectus, legs, and abdomen pale crimson, the tibiæ purplish white. Fore wing

purplish white suffused with olive-yellow except on costal and inner edges, the costal edge and veins scarlet, more strongly towards costa; antemedial line black, strong at costa, excurved below costa, oblique to median nervure, then inwardly oblique and excurved at vein 1; medial line black and rather diffused, oblique from below costa to median nervure, then inwardly oblique and slightly incurved; a black spot at upper angle of cell; postmedial line black, slightly excurved below costa, excurved at veins 4, 5, then oblique. Hind wing pale yellow, the costal area tinged with crimson. Underside yellow, the costal area of both wings crimson except at apex; hind wing with black discoidal lunule.

Hab. S.E. Peru, Carabaya, S. Domingo, 2 ♂, type † ♂ in Coll. Rothschild. *Exp.* 32 millim.

*1972 *i.* Palæomolis garleppi.

Palæomolis garleppi, Roths. Nov. Zool. xvii. p. 175 (1910), & xviii. pl. 3. f. 3.

♂. Head and thorax pale rufous; abdomen ochreous tinged with rufous. Fore wing pale rufous; antemedial line black, giving off a short streak on costa towards base, excurved at median nervure, then oblique; the inner margin with black streak from ante- to postmedial line; a rather diffused blackish medial line, angled outwards on median nervure, then oblique; an oblique black discoidal bar, expanding into a small spot above and slightly angled inwards at median nervure; postmedial line blackish, oblique to vein 6, incurved at discal fold, excurved to vein 3, then incurved and again slightly excurved below submedian fold. Hind wing whitish tinged with rufous, a slight blackish lunule on upper discocellular; the underside more strongly tinged with rufous and with stronger discoidal lunule.

Hab. Bolivia, R. Tanampaya (*Garlepp*), type † ♂ in Coll. Rothschild. *Exp.* 26 millim.

1973. Pygarctia spraguei.

Larva. Barnes & McD. Can. Ent. xliv. p. 190.

Pale green shading to pale orange at sides; traces of a dark dorsal line and of a pale subspiracular line; tubercles pale, the base of hairs black; the body thickly clothed with long silky plumed pinkish grey hair, the hairs on the dorsal line blackish; spiracles creamy white ringed with black; prolegs reddish; head pale reddish. Pupates in a coarse cocoon of hair and earth on or just below the surface of the ground. Food-plant, *Euphorbia*.

*1975 *a.* Pygarctia grossbecci. (Plate LXX. fig. 11.)

Pygarctia grossbecki, Davis, Bull. Brooklyn Ent. Soc. viii. p. 59 (1913).

♀. Head and tegulæ orange-yellow, the antennæ black, the palpi blackish except towards base; thorax grey-brown, the upper edge of patagia yellow towards base; abdomen deep orange with

dorsal series of small black spots; pectus, legs, and ventral surface of abdomen deep brown, some orange below the wings, the fore coxæ orange. Fore wing pale greyish brown, the costa to near apex and the inner margin with yellow fasciæ. Hind wing pale greyish brown. Underside greyish brown with a yellow fascia on costal area of fore wing.

Hab. U.S.A., Florida (*Dyar*), in U.S. Nat. Mus. *Exp.* 42 millim.

1976 *a*. **Pygarctia neomexicana.** (Plate LXIV. fig. 8.)

Pygarctia neomexicana, Barnes, Can. Ent. xxxvi. p. 166 (1904); id. Contr. Nat. Hist. Lep. N. Am. i. 4. pl. xiii. f. 7.

Head and thorax grey; vertex of head scarlet; tegulæ edged with scarlet above; abdomen scarlet with dorsal series of black bars. Fore wing grey, the costal edge and cilia white. Hind wing grey, the inner area scarlet, the cilia white.

Hab. U.S.A., Texas. *Exp.* 44 millim. This species is unknown to me; figured from drawing from type in Coll. Barnes.

1976 *b*. **Pygarctia pterostigma.** (Plate LXIV. fig. 9.)

Pygarctia pterostigma, Dyar, Proc. Ent. Soc. Wash. xi. p. 21 (1909).

Head and thorax grey, the neck pink; abdomen pink with a dorsal series of blackish spots, the ventral surface grey; legs grey, the fore coxæ pink on inner side. Fore wing grey with yellowish white discoidal lunule. Hind wing grey.

Hab. Mexico, Tehuacan (*Müller*), 2 ♂. *Exp.* 34 millim.

1976 *c*. **Pygarctia murina**, trans. from *Euchætes*, no. 1983, and insert:—

Pygarctia murina, albistrigata, Barnes & McD. Contr. Nat. Hist. Lep. N. Am. ii. 3 p. 103, pl. iii. ff. 10, 12 (1913).

A form with a white spot at lower angle of cell of fore wing and the veins beyond the cell usually streaked with white; hind wing of male white with the terminal area suffused with grey, of female uniform grey.

U.S.A., Texas, San Benito, 1 ♂ cotype.

1976 *d*. **Pygarctia poliochroa.** (Plate LXIV. fig. 10.)

Pygarctia poliochroa, Hmpsn. Nov. Zool. xxiii. p. 238 (1916).

Head and thorax brownish grey, the back of head scarlet, the metathorax with slight paired scarlet marks; antennæ black-brown; palpi scarlet at base; pectus with some scarlet below the wings; abdomen scarlet with dorsal and lateral series of small black spots, the ventral surface reddish brown. Fore wing brownish grey, the costal edge white, the cilia white at tips. Hind wing white, the veins and inner and terminal areas more or less strongly tinged with brown; the underside white, the costal area grey-brown.

Hab. U.S.A., Arizona, Oracle (*Oslar*), 2 ♂, 2 ♀ type. *Exp.* 32 millim.

*1976*e*. Pygarctia oslari. (Plate LXIV. fig. 11.)

Pygarctia oslari, Roths. Nov. Zool. xvii. p. 175 (1910).

♂. Head and thorax white, the frons at sides, back of head, tegulæ dorsally and upper edge of patagia towards base tinged with crimson; palpi tinged with crimson at base, black at tips; antennæ black except basal joint; pale crimson streaks below shoulders and wings, the fore coxæ pale crimson, the legs tinged with brown; abdomen pale crimson, the ventral surface white, dorsal and lateral series of small black spots. Fore wing white. Hind wing white faintly tinged with brown. Underside of fore wing tinged with brown.

Hab. U.S.A., New Mexico, Las Vegas (*Oslar*), type † ♂ in Coll. Rothschild. *Exp.* 34 millim.

*1976*f*. Pygarctia lorula. (Plate LXX. fig. 12.)

Pygarctia lorula, Dyar, Insec. Inscit. Menstr. ii. p. 161 (1914).

♂. Head violaceous grey, crimson behind, the antennæ dark brown, the palpi with some crimson towards base; thorax pure white; abdomen crimson; pectus and ventral surface of abdomen white, some crimson below the wings; legs tinged with brown. Wings uniform pure white. Underside of fore wing with the costal half tinged with brown.

Hab. U.S.A., Texas, Kerrville, in U.S. Nat. Mus. *Exp.* 36 millim.

1976*g*. Pygarctia flavidorsalis. (Plate LXIV. fig. 12.)

Pygarctia flavidorsalis, Barnes & McD. Contr. Nat. Hist. Lep. N. Am. ii. 3. p. 103, pl. iv. f. 3 (1913).

♂. Head orange-yellow, the antennæ black, the palpi black above; thorax pure white; legs brown with the fore coxæ orange-yellow; abdomen orange-yellow with a dorsal series of small black spots, the ventral surface white. Wings pure glossy white; the underside of fore wing with the costa tinged with grey.

Hab. U.S.A., Texas, San Benito, 1 ♂ co-type. *Exp.* 34 millim.

Page 417. For Euchætes, Harr. nec Dejean, Col. 1834, insert:—

EUCHÆTIAS. Lyman, Can. Ent. xxxiv. p. 27 (1910).

The genus should be placed next after *Pygarctia*.

*1979*a*. Euchætias parazona. (Plate LXIV. fig. 13.)

Euchætias parazona, Dyar, Pr. U.S. Nat. Mus. xlii. p. 56 (1912).

♀. Head and thorax grey-black, the back of head with pair of orange spots, the shoulders with orange stripes; fore coxæ crimson; abdomen crimson with black segmental bands, the anal tuft white, the ventral surface grey. Fore wing grey-black with orange-

yellow costal fascia narrowing to a point before apex; cilia whitish. Hind wing grey-black, the cilia whitish.

Hab. Mexico, Misantla (*Müller*). *Exp.* 50 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

1980. Euchætias albicosta.

Larva. Dyar, Proc. Ent. Soc. Wash. xiii. p. 229 (1911).

Dull purplish with irregular pale lateral markings and densely clothed with tufts of hair; the hair mostly black with long slender black pencils from somites 4 and 12 and white pencils from warts ii. and iii. on somites 5 and 11; subdorsal series of alternating short white and orange tufts on somites 6 to 11; warts rather small, normal; hair finer, shortly feathered especially the plumed subdorsal white and orange hairs; head rounded, shining black with pale sections.

*1982 *a*. Euchætias fusca.

Pygarctia fusca, Roths. Nov. Zool. xvii. p. 175 (1910), & xviii. pl. 3. f. 5.

♂. Head and thorax fuscous brown; gulæ crimson; patagia with crimson streak on upper edge at base; some crimson below base of wings; fore coxæ crimson on outer side; abdomen pale crimson, a dorsal series of black points, the extremity dark brown, lateral dark stripes except at base, the ventral surface pale brown, dark at extremity. Fore wing fuscous brown; a crimson point at base and slight streak below base of vein 1. Hind wing whitish, the veins beyond the cell and termen tinged with brown; the underside with the costal area suffused with brown.

Hab. U.S.A., Arizona, Tucson (*Oslar*), type † ♂ in Coll. Rothschild. *Exp.* 44 millim.

1982 *b*. Euchætias gigantea. (Plate LXIV. fig. 14.)

Euchætias gigantea, Barnes & McD. Can. Ent. xlii. p. 209 (1910), & Contr. Nat. Hist. Lep. N. Am. i. 4, pl. xiii. f. 8, & xix. f. 3.

♂. Head and thorax dark grey-brown; neck with scarlet ring; pectus with some scarlet; abdomen scarlet with dorsal series of black spots and lateral series of small brown spots, the ventral surface white. Fore wing grey thickly irrorated with brown; a faint postmedial shade, oblique below vein 6. Hind wing brown slightly irrorated with grey.

Hab. U.S.A., Arizona, White Mts., 2 ♂, cotype. *Exp.* 44 millim.

*1982 *c*. Euchætias rhadia. (Plate LXIV. fig. 15.)

Euchætes expressa, subsp. 1 part. Hmpsn. Cat. Lep. Phal. B.M. iii. p. 419.
Euchætias rhadia, Dyar, Pr. U.S. Nat. Mus. xliv. p. 285 (1913).

Head and thorax purplish grey; abdomen crimson with dorsal series of small black spots and lateral series of streaks, the ventral surface whitish in male, grey in female. Fore wing grey with a

slight brown tinge and hardly any white irroration. Hind wing deeper and purer grey in male, almost fuscous in female.

Hab. Mexico, Jalapa (*Schaus*). *Exp.* 36 millim. Figured from a drawing from type in U.S. Nat. Mus.

*1982 *d.* Euchætias epagoga. (Plate LXIV. fig. 16.)

Euchætes expressa, subsp. 1. part. Hmpsn. Cat. Lep. Phal. B.M. iii. p. 419.
Euchætias epagoga, Dyar, Pr. U.S. Nat. Mus. xliv. p. 285 (1913).

Head and thorax grey-white; neck with pink ring; fore coxæ tinged with pink; abdomen crimson with dorsal and lateral series of black spots, the ventral surface white in male, grey in female. Fore wing grey-white thickly irrorated with grey, leaving an indistinct white postmedial line. Hind wing rather darker grey-white in male, considerably darker in female.

Hab. Mexico, Tehuacan (*Müller*), Oaxaca (*Schaus*). *Exp.* 38 millim. Figured from a drawing from type in U.S. Nat. Mus.

1982 *e.* Euchætias mitis. (Plate LXIV. fig. 17.)

Euchætes expressa, subsp. 2. Hmpsn. Cat. Lep. Phal. B.M. iii. p. 419.
Euchætes mitis, Schaus, A. M. N. H. (8) vi. p. 407 (1910).

Hab. Costa Rica, 1 ♂, Juan Vinas, El Sitio, San Francisco de Guadaloupe, 1 ♀. *Exp.*, ♂ 32, ♀ 44 millim.

1984. Euchætus bolteri, insert :—

Euchætes scepsiformis, Graepf, Ent. Am. iii. p. 43 (1887), ♂.

1984 *a.* Euchætias castalla. (Plate LXIV. fig. 18.)

Euchætias castalla, Barnes, Can. Ent. xlii. p. 210 (1910); id. Contr. Nat. Hist. Lep. N. Am. i. 4. pl. iv. ff. 2, 15.
Euchætias castalla, ab. *griseopunctata*, Barnes, Can. Ent. xlii. p. 210 (1910); id. Contr. Nat. Hist. Lep. N. Am. i. 4. pl. iv. f. 4.
Empseudosoma involutum, Druce, Biol. Centr.-Am., Het. ii. p. 391 (part), nec Sepp.

♂. Head and thorax white, the back of head with crimson line; antennæ with the branches blackish; palpi brownish crimson at base; legs tinged with brown, the fore femora crimson above; abdomen crimson with dorsal and lateral series of small black spots, the ventral surface brownish white. Wings white, the veins faintly tinged with brown and the fore wing very faintly irrorated with brown.

♀. Abdomen with large white anal tuft.

ab. 1. *griseopunctata*. Fore wing irrorated with grey and with diffused postmedial line oblique to vein 5, then inwardly oblique.

Hab. U.S.A., Arizona, Penal Co., Sta. Catalina Mts., 1 ♂ co-type; Mexico, Presidio (*Forrer*), 1 ♀, Durango (*Becker*), 1 ♀, Godman-Salvin Coll. *Exp.*, ♂ 36, ♀ 46 millim.

*1984 *b.* Euchætias psara. (Plate LXIV. fig. 19.)

Euchætes psara, Dyar, J. N.Y. Ent. Soc. xv. p. 229 (1907).

♂. Head and thorax blackish grey; abdomen blue-black, the anal tuft crimson, the ventral surface grey, the hair at base of

dorsum grey; legs grey, the fore coxæ crimson. Fore wing dark grey irrorated with white especially below the cell; a diffused waved postmedial whitish band, excurved from below costa to vein 4, then incurved. Hind wing semihyaline whitish, the veins, costal, inner, and terminal areas suffused with grey.

Hab. Mexico, Mexico City (*Müller*). *Exp.* 36 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

1985. Euchætias egle, insert:—

ab. *cyclica*, H. Edw. Papilio, iii. p. 148 (1883).

Fore wing with indistinct diffused oblique postmedial band with dentate outer edge.

Larva. Girault, Ent. News. Philad. xxiv. p. 53.

Gregarious on milkweed, resting in clusters and forming masses of cocoons from the hairs of the larvæ on the surface of the ground.

*1986 *a*. Euchætias cressida. (Plate LXIV. fig. 20.)

Euchætias cressida, Dyar, Pr. U.S. Nat. Mus. xliv. p. 284 (1913).

♂. Head pale grey in front, orange on vertex; thorax white with a greyish tinge; abdomen orange with dorsal and lateral series of black spots, greyish white ventrally. Wings glossy white; underside of fore wing grey.

Hab. Mexico, San Luis Potosi, Cerritos (*Müller*). *Exp.* 34 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

1977 *a*. Stenarctia griseipennis. (Plate LXIV. fig. 21.).

Stenarctia griseipennis, Hmpsn. A. M. N. H. (8) viii. p. 410 (1911).

♂. Head and thorax grey tinged with brown; palpi black at sides; frons with black bar; antennæ black, the shaft white above, the tuft on basal joint crimson, a black spot between their bases and crimson points behind them; tegulæ with blackish spots at base of dorsum, the prothorax with blackish streaks; pectus whitish with pale crimson streaks below the shoulders; coxæ pale crimson, the fore coxæ with black spots, the legs striped black and whitish; abdomen fulvous yellow, the extremity crimson; subdorsal black spots except at base and extremity and a dorsal black spot on penultimate segment, sublateral series of black spots and a ventral series except at extremity. Fore wing grey with pale streaks on the veins; a subbasal black point below costa; an antemedial series of diffused fuscous streaks in the interspaces; obliquely-placed medial black spots on costa and in cell, a discoidal spot and spot above it on costa; a curved fuscous postmedial shade

interrupted by grey streaks on the veins. Hind wing ochreous yellow, the terminal area grey-brown, broadly at costa and narrowing to vein 1 where it terminates, the veins on it with slight pale streaks; the underside with the costal area suffused with fuscous brown.

Hab. S. Nigeria, Ilesha (*Humfrey*), 1 ♂ type. *Exp.* 40 millim.

*1977 *b*. Stenarctia abdominalis. (Plate LXVI. fig. 22.)

Stenarctia abdominalis, Roths. Nov. Zool. xvii. p. 175 (1910).

♂. Head and tegulæ orange-yellow; palpi black at sides; frons above and vertex of head with paired black spots; antennæ black, the branches fulvous, the basal joint yellow, black in front, the tegulæ with black spots; thorax brown mixed with blackish; pectus and legs fulvous yellow mixed with blackish; abdomen orange-yellow suffused with crimson towards extremity, dorsal, lateral, and ventral series of black spots except towards base. Fore wing fulvous brown, the veins rather darker; traces of a diffused brown antemedial line with black spot at costa; a small elongate black spot in middle of cell; a blackish spot on costa above end of cell with traces of the diffused brownish postmedial line arising from it, excurved to vein 4, then incurved; a rather more distinct diffused curved brown subterminal line. Hind wing ochreous yellow.

Hab. Sierra Leone, Moyamba (*Cator*), typ † ♂ in Coll. Rothschild. *Exp.* 36 millim.

1990 *a*. Seirarctia alicia. (Plate LXIV. fig. 23.)

Seirarctia alicia, Hmpsn. A. M. N. H. (8) viii. p. 410 (1911).

♂. Head yellow with some fuscous on frons; palpi and antennæ black; thorax whitish mixed with brown, the patagia fringed with yellow and crimson hair and with two small black spots near base; pectus, and femora above, crimson, the tibiæ and tarsi banded blackish and white; abdomen yellowish irrorated with brown, the hair at base crimson, lateral series of black spots and sublateral series of bars. Fore wing white strongly and thickly striated with black, the inner margin and cilia yellow; a postmedial black spot in discal fold. Hind wing orange-yellow, the base and inner area tinged with crimson; a black discoidal spot; confluent subterminal spots on costal area and at discal fold and spots at veins 2 and 1. Underside of fore wing suffused with crimson except the costal and terminal areas which are yellowish white thickly striated with black; hind wing with the costal area to beyond middle and the inner area suffused with crimson.

Hab. Br. E. Africa, Bueni (*Neave*), 1 ♂ type. *Exp.* 40 millim.

1990 *b*. Seirarctia metaxantha. (Plate LXIV. fig. 24.)

Seirarctia metaxantha, Hmpsn. A. M. N. H. (8) iv. p 363 (1909).

♂. Head and thorax buff slightly tinged with rufous; palpi crimson at base, black at tips; antennæ black except towards base above; patagia with black spot at base and crimson upper edge; pectus in front and legs crimson, the femoro-tibial joints black, the tibiæ ringed with buff at extremities, the tarsi ringed with black; abdomen buff with crimson hair at base, oblique black subdorsal patches, two small spots on anal segment, and sublateral series of small spots. Fore wing buff thickly striated with rufous, the costa to postmedial line and the submedian interspace to the medial band slightly striated; a diffused antemedial rufous band, angled outwards on median nervure; a diffused curved medial band; a slight crimson discoidal lunule; a postmedial rufous line, excurved at middle, then oblique. Hind wing pale orange-yellow, the inner area tinged with crimson; a black discoidal striga; a fine orange terminal line; the underside with the costal area tinged with crimson.

Hab. Transvaal, Lydenburg, 1 ♂, White R. (*Cooke*), 1 ♂ type *Exp.* 56 millim.

*1990 *c*. Seirarctia approximans. (Plate LXVI. fig. 20.)

Seirarctia approximans, Roths. Nov. Zool. xxiv. p. 483 (1917), ♂.

♂. Head and thorax flesh-pink, the patagia with a small blackish spot near base, the antennæ black, the palpi black with pale crimson scales in front; abdomen pale crimson at base, then yellow with subdorsal series of blackish bars; pectus and legs pale crimson, the fore tibiæ and tarsi whitish streaked and barred with black, the mid and hind femora and tarsi at extremities black; ventral surface of abdomen pale crimson with lateral series of small black spots. Fore wing flesh-pink striated with blackish except on basal and costal areas, the medial area more thickly striated, the striæ forming obscure oblique ante- and postmedial lines arising below the costa; a small blackish discoidal spot. Hind wing white, the inner area and termen tinged with pinkish ochreous; a black discoidal striga. Underside of fore wing and the costal area of hind wing pale crimson; both wings with black discoidal bar.

Hab. "Germ. E. Africa," Manow, type † ♂ in Coll. Rothschild. *Exp.* 48 millim.

1990 *d*. Seirarctia melanocera, n. sp.
(Plate LXVI. figs. 21 ♂, 22 ♀.)

Seirarctia approximans, Roths. Nov. Zool. xxiv. p. 483 (1917), ♀ nec ♂.

♂. Head and thorax bright red-brown, the antennæ black, the sides of frons and palpi black, the latter with some crimson

towards base; abdomen pale crimson at base, then orange-yellow with subdorsal series of black bands; pectus and femora crimson, the tibiæ and tarsi black; ventral surface of abdomen orange with lateral series of black spots. Fore wing pale rufous very thickly striated with red-brown; an oblique blackish antemedial line arising below the costa and conjoined at inner margin to an obscure medial line arising at vein 2; a black discoidal spot; a blackish postmedial line, excurved below costa, then oblique. Hind wing white; a slight pinkish tinge at base of inner margin; a minute black discoidal spot. Underside of fore wing fulvous, the terminal area striated with rufous, the cell and costal area to beyond middle crimson; hind wing with the costal area pale crimson.

♀. Head and fore wing paler rufous, the latter with the lines almost obsolete; hind wing pale crimson with black discoidal spots.

Hab. "Germ. E. Africa," Itumba Distr. (*G. Wood*), 1 ♂ type, Mpwapwa ♀ in Coll. Rothschild. *Exp.*, ♂ 42, ♀ 52 millim.

1990*e*. Seirarctia jacsoni.

Seirarctia jacksoni, Roths. Nov. Zool. xvii. p. 176 (1910), & xviii. pl. 3. ff. 8, 9.

♂. Head and thorax red-brown mixed with fuscous; antennæ whitish; femora pinkish above; abdomen yellow with subdorsal series of blackish bars and lateral series of black spots, the ventral surface tinged with red-brown. Fore wing red-brown irrorated with fuscous; a diffused blackish antemedial line, oblique from costa to just below the cell when it is angled, some diffused black beyond it on inner margin to the obscure black medial line which is oblique to median nervure, then inwardly oblique; a black spot on upper discocellular; postmedial line blackish, excurved from below costa to vein 4, then oblique; an obscure diffused blackish subterminal line with black spot at discal fold. Hind wing yellowish tinged with brown; a black discoidal spot and slight fuscous subterminal spots at discal fold and below vein 2.

♀. Abdomen orange-yellow with subdorsal series of black patches; fore wing redder; hind wing ochreous yellow with slight black discoidal lunule.

Hab. Br. E. Africa, Nairobi (*Anderson, Lamborn*), 2 ♂, 1 ♀, (*Jackson*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 40, ♀ 48 millim.

Page 424. Genus **DIONYCHOPUS**, insert:—

	Type.
Mungchia, Wllgrn. Efv. Vet.-Akad. Förh. xv. p. 213 (1858)	*amasis*.

*1993*a*. Turuptiana affinis. (Plate LXIV. fig. 25.)

Turuptiana affinis, Roths. Nov. Zool. xvi. p. 296 (1909).

♂. Head white, the palpi, sides of frons, and antennæ black-brown; thorax black-brown with white patches on patagia; pectus

and femora orange, tibiæ and tarsi grey-brown; abdomen black-brown, the extremity and ventral surface yellow with lateral black-brown bars. Fore wing brown with a large triangular white patch from below costa to vein 1, on which it extends from near base to near tornus, and a large triangular patch just below costa and before termen extending from close to apex into end of cell and to above vein 2. Hind wing pure white.

Hab. Venezuela, Merida, type † ♂ in Coll. Rothschild; Peru, Carabaya, S. Domingo, R. Huacamayo, La Union. *Exp.* 52 millim.

1994 *a*. Turuptiana panoezys. (Plate LXIV. fig. 26.)

Turuptiana panoezys, Dyar, Pr. U.S. Nat. Mus. li. p. 8 (1916).

♂. Head white, the antennæ with the basal half of shaft white, the terminal half blackish, the branches brown; frons and palpi black; thorax black, the outer edge of tegulæ and edges of patagia broadly white; pectus white, dark brown in front and below the wings; legs white, the tibiæ in front, the fore and mid tarsi, and the extremities of hind tarsi black-brown; abdomen dark brown, the base and anal tuft white, lateral series of blackish spots, the ventral surface white with small blackish spots on medial segments. Fore wing white; a black fascia on basal half of costa and spot above end of cell; a fascia in upper end of cell and spot beyond it, elongate spot above vein 6, patch at apex with semilunate white mark on it and two small spots below it on termen; a fascia below the cell and vein 2 from near base to towards termen and fasciæ above veins 4, 3, 2; a fascia above vein 1 from before middle to termen, fascia on middle of inner margin, and elongate spot near tornus. Hind wing pure white.

Hab. Mexico, Guerrero, Hidalgo (*Mann & Skewes*), 8 ♂. *Exp.* 40 millim.

1994 *b*. Turuptiana sanguinea. (Plate LXIV. fig. 27.)

Turuptiana sanguinea, Hmpsn. A. M. N. H. (7) xix. p. 238 (1907).

Head, thorax, and abdomen black; femora crimson above; abdomen with crimson subdorsal fasciæ not reaching base. Fore wing black; an irregular curved antemedial crimson band expanding on costa towards base and extending to vein 1; a medial rather triangular band from costa to vein 1, indented by black streaks on the veins; a small spot beyond the cell; a curved postmedial band from costa to vein 1 with slight dark streaks on the veins; apical part of costa and cilia pale yellowish tinged with crimson. Hind wing crimson; a little black at base; a discoidal lunule; a terminal black band narrowing to a point at vein 1.

Hab. Bolivia, La Paz, 9000′. 1 ♂, 1 ♀ type. *Exp.* 28 millim.

1995 *a*. Turuptiana ochthœba, n. sp. (Plate LXIX. fig. 7.)

♀. Head and thorax white, the patagia edged with crimson, the antennæ white above, black below, the frons with some black hair

at sides, the palpi clothed with black and white hair; abdomen orange with some white hair at base and the anal tuft white; pectus, legs, and ventral surface of abdomen white, the femora crimson above, the fore and mid tibiæ and tarsi with black streak on inner side, the abdomen with lateral series of black spots and small sublateral spots on medial segments. Fore wing white, the scaling hairy; the veins defined on each side by pale brownish streaks. Hind wing white, rather thinly scaled.

Hab. N.W. Rhodesia, Solwezi (*Dollman*), 1 ♀ type. *Exp.* 46 millim.

*1997 *a*. Turuptiana pellucida. (Plate LXVII. fig. 2.)

Turuptiana pellucida, Roths. Nov. Zool. xxiv. p. 484 (1917).

♂. Head and thorax whitish suffused with red-brown, the antennæ, frons, and palpi black; abdomen fulvous orange with the 4th to 6th segments black; pectus and abdomen fulvous orange, the latter with lateral series of black spots; legs black. Fore wing with the base, the costal and inner sides fulvous orange, the rest of wing hyaline; an antemedial black streak on costa and medial and postmedial spots; the medial part of inner margin with black streaks, the inner area with closely approximated medial and postmedial black lines; cilia whitish. Hind wing hyaline; the base and inner area fulvous orange; cilia whitish. Underside with the costal area of both wings bright fulvous orange; fore wing with the inner area white, the frenulum black; hind wing with black point below middle of costa, the inner area bright fulvous orange with a black mark below extremity of vein 1 in the type only.

Fore wing with vein 10 shortly stalked with 7, 8, 9.

Hab. Colombia, Bogotá, Monte Tolima (*Fassl*), type † ♂ in Coll. Rothschild. *Exp.* 50 millim.

*1997 *b*. Turuptiana bricenoi. (Plate LXIV. fig. 29.)

Turuptiana bricenoi, Roths. Nov. Zool. xvi. p. 297 (1909).

♂. Head and thorax ochreous tinged with brown, the palpi, frons, antennæ, a patch on dorsum of thorax and pectus in front black-brown, the legs greyish brown streaked with blackish; abdomen orange-yellow with dorsal black-brown patch from near base to near extremity and lateral black points on medial segments. Fore wing ochreous yellow tinged with reddish brown; conical black-brown antemedial, medial, postmedial, and subterminal patches on costa; a black mark at end of cell broken up by the veins; some brown suffusion on inner medial area with an oblique antemedial black line from submedian fold to inner margin, on which there is a black streak, and two incurved postmedial lines from vein 2 to inner margin; a subterminal series of small elliptical black marks on veins 6 to 1, bisected by the veins, the marks on veins 6 and 5 slight and on vein 2 further from termen. Hind

wing ochreous yellow with a slight curved blackish mark from lower angle of cell to submedian fold and an oblique black spot above extremity of vein 1; the underside with black spot at middle of costa and bar from costa at end of cell.

Hab. Venezuela. Merida (*Briceno*), type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

*1997 *e*. Turuptiana occendeni.

Turuptiana ockendeni, Roths. Nov. Zool. xvi. p. 296 (1909), & xviii. pl. 4. f. 15.

♂. Head and thorax ochreous yellow; palpi, frons, and antennæ black-brown; dorsum of thorax and upper edge of patagia with black streaks: pectus in front and legs black-brown; abdomen orange-yellow with a dorsal black patch from 3rd segment to near extremity and lateral and sublateral points except towards extremity. Fore wing ochreous yellow; antemedial and medial conical black patches on costa and slight medial streaks on subcostal and median nervures; a lunulate black patch from costa to lower angle of cell broken up by the yellow veins and with a black bar beyond it between veins 6 and 5; two incurved black lines from lower angle of cell to inner margin with an oblique black line from their inner side below vein 2 to inner margin on which there is a black streak; some olive rufous suffusion from beyond the cell to middle of inner margin; a subterminal black patch on costa broken up by the pale veins, small elliptical marks on veins 6 to 2 bisected by the veins, and three slight streaks above inner margin. Hind wing orange-yellow; an elliptical black discoidal spot, two small subterminal spots below costa, and a spot above extremity of vein 1; the underside with spot at middle of costa and small spots on and below costa at end of cell.

Hab. Peru, Carabaya. S. Domingo (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 62 millim.

1998. Turuptiana obscura, insert:—

Turuptiana steinbachi, Roths. Nov. Zool. xxiv. p. 484 (1917).

♂. Hind wing with the postmedial maculate band almost obsolete, the subterminal band reduced to slight points and a spot at vein 1.

♀. Hind wing brownish ochreous, an obscure oblique medial blackish band arising at upper angle of cell and conjoined below vein 2 to a similar postmedial band arising below the costa, excurved to vein 2 and ending at vein 1.

Argentina, Tucuman (*Steinbach*), type † ♂, ♀ in Coll. Rothschild.

1998 *a*. Turuptiana tessellata. (Plate LXIV. fig. 28.)

Turuptiana tessellata. Druce, A. M. N. H. (7) xviii. p. 85 (1906).

♂. Head and tegulæ orange-yellow; palpi, lower part of frons, and antennæ black; thorax black, the patagia edged with yellow

except at base; pectus with some yellow at base of legs; abdomen orange-yellow, a large dorsal black patch on medial segments, the ventral surface with diffused sublateral and ventral maculate stripes. Fore wing orange-yellow, the veins streaked with white except on costal area; a large triangular black patch from base of costa and a small patch below the cell; a large antemedial quadrate patch in submedian interspace and two conjoined spots on inner margin; a quadrate medial patch from costa to median nervure, a small spot above base of vein 2 and a discoidal patch partly confluent with the broad maculate postmedial band intersected by the white veins, obliquely excurved from costa to vein 3, then incurved; a subterminal maculate band intersected by the white veins and with somewhat dentate outer edge, broad towards costa, then narrow and interrupted below vein 3; cilia white. Hind wing pale yellow, the base, costa, and inner area orange-yellow; a blackish discoidal point and maculate postmedial band interrupted between veins 4, 3, and with large spot below vein 2; small subterminal spots above and below vein 1 and on one side a point below vein 7; the underside with obliquely curved black bar from middle of costa to middle of cell.

Hab. Peru, Aqualani (*Ockenden*), 1 ♂, type † ♂ in Coll. Joicey. *Exp.* 44 millim.

*1999 *a*. Turuptiana turruptianoides.

Automolis turruptianoides, Roths. Nov. Zool. xvii. p. 18, pl. 13. f. 9 (1910).

♂. Head and thorax pale ochreous; palpi, frons, antennæ, pectus, and legs black-brown, the legs with a slight bluish gloss; abdomen orange-yellow, the ventral surface ochreous. Fore wing pale ochreous with elongate subbasal and medial black-brown marks on costa and more rounded postmedial patches on costa and inner margin, all slightly glossed with blue. Hind wing pale semihyaline ochreous, the inner area with some orange-yellow hair.

Fore wing with vein 10 shortly stalked with 7, 8, 9.

Hab. Brazil, Up. Amazons, Santo Antonio do Javary (*Klages*), type † ♂ in Coll. Rothschild. *Exp.* 44 millim.

1999 *b*. Turuptiana testacea.

Automolis testacea, Roths. Nov. Zool. xvi. p. 270 (1909), & xviii. pl. 5. f. 36.

♂. Palpi, frons, and antennæ black-brown; vertex of head and thorax pale brownish ochreous; pectus in front and legs black-brown; abdomen ochreous slightly tinged with rufous. Fore wing pale brownish ochreous; slight antemedial and medial brown streaks on costa; a more distinct spot on costa above end of cell, and an oblique brownish line from lower angle of cell to inner margin; the veins brownish. Hind wing semihyaline ochreous white, the veins and inner area tinged with brown.

Fore wing with vein 10 shortly stalked with 7, 8, 9 or from cell.

Hab. Peru, Carabaya, R. Huacamayo, La Union (*Ockenden*), type † ♂ in Coll. Rothschild, S. Domingo, Yahuarmayo, 2 ♂. *Exp.* 34–46 millim.

*1999 *c*. **Turuptiana fuscescens.** (Plate LXVII. fig. 3.)

Turuptiana fuscescens, Roths. Nov. Zool. xxiv. p. 484 (1917).

♂. Head and base of tegulæ white tinged with red-brown, the antennæ black, the frons and palpi blackish brown; tegulæ at tips and thorax dull red-brown; abdomen dull orange-yellow; pectus orange-yellow; legs dark reddish brown. Fore wing pale brownish ochreous, the costa and veins dull reddish brown; an oblique reddish brown postmedial line, dilated into a diffused spot at costa. Hind wing whitish tinged with brownish ochreous, rather thinly scaled, the veins pale reddish brown, the inner area clothed with dull reddish brown hair. Underside ochreous white tinged with red-brown; the costa of fore wing and veins pale red-brown.

Hab. Peru, Carabaya, R. Huacamayo (*Ockenden*), type † ♂ in Coll. Rothschild. *Exp.* 44 millim.

Page 431. Genus **METACRISIA**, insert:— Type.

Metacrisiodes, Dyar, Pr. U.S. Nat. Mus. li. p. 8 (1917)..... *pua*.

*2003 *a*. **Metacrisia schausi.** (Plate LXIV. fig. 30.)

Metacrisia schausi, Dogn. Hét. Nouv. Am. Sud, iii. p. 13 (1911).

♂. Head and thorax deep rufous mixed with some yellow; palpi and frons black; antennæ with the shaft black towards base; pectus, legs, and abdomen fulvous yellow, the tarsi ringed with black, the abdomen with sublateral series of small black spots. Fore wing with the basal area yellow; a rufous subbasal band from costa to submedian fold, defined by blackish, its edges waved, crossed by two black streaks in cell; medial area rufous defined and irrorated with blackish, its inner edge curved and waved, its outer edge slightly excurved at middle then bent inwards and sinuous, and bent outwards above inner margin, yellow spots defined by blackish on it below middle of cell and in and below end of cell; postmedial area fulvous yellow, its edges waved with a few blackish scales on them and black striæ from costa; a narrow maculate fulvous yellow terminal band with some black scales on its inner edge; cilia chequered yellow and blackish. Hind wing pale yellow; the underside with the costa tinged with rufous.

Hab. Colombia, Paramo del Quindin, type † ♂ in Coll. Dognin. *Exp.* 38 millim.

*2003 *b*. **Metacrisia pua.** (Plate LXIX. fig. 3.)

Metacrisiodes pua, Dyar, Pr. U.S. Nat. Mus. li. p. 8 (1917).

♂. Head, thorax, and abdomen clothed with long brownish grey hair, the vertex of head with tuft of hair. Fore wing brownish

grey with an ochreous tinge, the veins pale. Hind wing and underside grey tinged with fuscous brown.

Hab. Mexico, Guerrero, Hidalgo (*Mann & Skewes*). *Exp.* 38 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

*2004 *a.* Calidota rubrosignata.

Halesidota rubrosignata, Weym. Iris, xx. p. 28, pl. 2. f. 4 (1907).

Head and thorax black-brown; the legs glossed with blue; abdomen crimson with some black-brown hair at base and blue-black dorsal stripe, a lateral series of small spots and the ventral surface blue-black. Fore wing black-brown with metallic blue-green gloss on costal and inner areas; a rather elongate crimson subbasal spot and postmedial wedge-shaped streak just below costa. Hind wing black-brown with a slight blue-green gloss.

Hab. Venezuela, Merida (*Briceno*), in Coll. Rothschild. *Exp.* 68 millim.

2005 *a.* Calidota clarcana. (Plate LXIV. fig. 31.)

Calidota clarcana, Dyar, Pr. U.S. Nat. Mus. li. p. 7 (1917).

♂. Head and thorax white suffused with brown; antennæ blackish, the basal joint crimson and white with black point on it; frons and palpi black, the latter crimson and white in front at base; back of head, tegulæ, and shoulders with black spots, short black streaks on upper edge of patagia, the metathorax with black spot edged with crimson behind; pectus white tinged with brown; coxæ crimson with black patches on the fore coxæ, the legs black-brown, the tibiæ and tarsi ringed with white; abdomen crimson, pale brown at base, and with dorsal and lateral series of black spots except at base, the ventral surface pure white. Fore wing creamy white thickly irrorated and striated with brown; two crimson points at base; some black-brown near base on costa and below the cell; an oblique antemedial semihyaline white bar from costa to median nervure, narrow across the cell and with crimson streak at costa and a broad black-brown bar on its outer edge, and obliquely-placed semihyaline white spots below the cell and above vein 1; a semihyaline white mark in upper end of cell with some black-brown before and beyond it, and oblique striga in lower end of cell with black-brown spot beyond it; an irregularly quadrate white postmedial mark on costa with crimson streak at costa followed by a series of irregular partly-conjoined semihyaline white spots excurved below costa, then oblique and defined on outer side by diffused black-brown, rather broadly from costa to vein 3; an oblique subterminal series of small irregular semihyaline white spots defined on outer side by small black-brown spots in the interspaces; the termen with series of small brown spots with white centres. Hind wing semihyaline white; a pale brownish discoidal patch with faint oblique band from it to inner margin; the terminal area broadly

pale brown; cilia white. Underside of fore wing suffused with brown, with white spots on terminal half of costa and spot on termen below apex; hind wing with some white spots from below costa before termen to termen below vein 2.

Hab. Mexico, Hidalgo (*Mann & Skewes*), 1 ♂. *Exp.* 52 millim.

*2005 *b*. Calidota albaticosta. (Plate LXIV. fig. 32.)

Calidota albaticosta, Dyar, Pr. U.S. Nat. Mus. xlii. p. 55 (1912).

♂. Head grey, crimson behind; antennæ black; thorax dark grey, the tegulæ white in front and crimson below; abdomen crimson with dorsal and lateral series of blackish spots, the ventral surface white with the two terminal segments blackish. Fore wing dark grey, the costal area white narrowing to a point just before apex. Hind wing white, the veins dark.

Hab. Mexico, Tehuacan (*Müller*). *Exp.* 40 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

*2005 *c*. Calidota zella. (Plate LXVII. fig. 4.)

Callidota zella, Dyar, Proc. Ent. Soc. Wash. v. p. 291 (1903).

♂. Head and thorax dark brown with some pink scales at back of head and below patagia; abdomen pinkish with dorsal series of small brown spots, lateral brown bands incised above, the ventral surface greyish white; fore coxæ pink at sides. Fore wing grey-brown with a pale yellow triangular discoidal spot. Hind wing semi-hyaline whitish.

Hab. U.S.A., Arizona, Hot Springs. *Exp.* 26 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

*2005 *d*. Calidota angelus. (Plate LXVII. fig. 5.)

Calidota angelus, Dyar, J. N.Y. Ent. Soc. xv. p. 228 (1907).

♂. Head white in front, the gulæ and vertex crimson; antennæ blackish; thorax white, pectus greyish with crimson patch at base of wings; legs grey, the fore coxæ edged with crimson; abdomen crimson with grey lateral line and the ventral surface white. Fore wing grey, the veins suffused with white, the costa and cilia white. Hind wing white.

Hab. Mexico, Mexico City (*Müller*). *Exp.* 40 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

*2005 *e*. Calidota calosoma. (Plate LXVII. fig. 6.)

Calidota calosoma, Dyar, Pr. U.S. Nat. Mus. xliv. p. 285 (1913).

♂. Head fuscous in front, ochreous on vertex; antennæ blackish; thorax pale yellow with the dorsum crimson, the patagia streaked

with ochreous; pectus crimson; legs slate-grey; abdomen slate-grey, the base crimson, the anal tuft ochreous. Wings pale grey, thinly scaled, the hind wing somewhat paler.

Hab. Mexico, Orizaba (*Müller*). *Exp.* 46 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

2008 *a*. Calidota quadripunctata. (Plate LXVII. fig. 7.)

Calidota quadripunctata, Schaus, A. M. N. H. (8) vi. p. 407 (1910).

♂. Head dark brown, the vertex brownish white with a black point behind; tegulæ brownish white with a pair of dorsal black spots; thorax pale red-brown; pectus and fore coxæ orange-yellow, the legs dark brown; abdomen orange-yellow with dorsal series of brown spots diminishing towards extremity, the ventral surface brown. Fore wing pale red-brown; a black point in end of cell, a small spot beyond the cell in discal fold and points below veins 5 and 4. Hind wing pale semihyaline red-brown.

Hab. Costa Rica, Avangarez (*Schaus*), 1 ♂. *Exp.* 50 millim.

*2008 *b*. Calidota momis. (Plate LXVII. fig. 8.)

Calidota momis, Dyar, Pr. U.S. Nat. Mus. xlii. p. 55 (1912).

Head and thorax grey-brown, the vertex of head and tegulæ dull ochreous, the latter with pair of black spots; antennæ black; abdomen ochreous with dorsal series of black spots, the ventral surface grey-brown. Fore wing grey-brown; a black point in cell near extremity and points just beyond the cell above veins 5 and 4. Hind wing semihyaline white, the veins brown, the costal and terminal areas suffused with brown.

Hab. Mexico, Jalapa (*Schaus*), Misantla (*Müller*). *Exp.* 44 millim. This species is unknown to me, figured from a drawing from type in U.S. Nat. Mus.

*2011 *a*. Calidota palmeri. (Plate LXVII. fig. 9.)

Opharus palmeri, Druce, A. M. N. H. (8) iii. p. 459 (1909).

♂. Head and thorax reddish orange, the latter except the tegulæ suffused with chocolate-brown; palpi and antennæ blackish; extremities of femora and the tibiæ and tarsi brown; abdomen reddish orange with dorsal series of black-brown maculate bands except at base, the ventral surface brown. Fore wing chocolate-brown with numerous yellow striated lines disposed somewhat in pairs, some reddish orange at base; a faint dark discoidal spot. Hind wing brown, the basal inner area ochreous white.

Hab. W. Colombia, San Antonio (*Palmer*), type † ♂ in Coll. Joicey. *Exp.* 62 millim.

*2012 *a*. **Calidota leucocorypha.** (Plate LXVII. fig. 10.)

Calidota leucocorypha, Dogn. Hét. Nouv. Am. Sud, vii. p. 18 (1914).

♀. Head and thorax dark brown, the vertex of head with white patch tinged with yellow behind; pectus orange at sides; abdomen dark brown with lateral series of yellow spots except on basal segment, almost meeting dorsally on terminal segments, the anal segment with small sublateral patches of unscaled membrane. Fore wing uniform dark brown. Hind wing yellowish white, the costal and terminal areas broadly brown, the latter with irregular inner edge; the veins brown.

Hab. Peru, Yahuarmayo, type † ♀ in Coll. Dognin. *Exp.* 76 millim.

*2013 *a*. **Calidota paulina.** (Plate LXVII. fig. 11.)

Opharus paulina, D. Jones, Trans. Ent. Soc. 1912, p. 421.

♀. Head and thorax dark red-brown, the palpi with orange points at extremities of the joints behind, orange points just in front of antennæ and spots at back of head, the tegulæ with some orange scales at tips dorsally, the patagia with orange points at base, the metathorax with subdorsal orange streaks; coxæ with orange patches; abdomen dark red-brown with series of subdorsal orange-yellow patches except on two basal segments, almost meeting dorsally on terminal segments, and sublateral series of minute orange-yellow spots. Fore wing dark red-brown; an oblique dark subbasal shade from costa to submedian fold, and an antemedial shade angled outwards below the cell; a faint postmedial spot on costa and patch beyond the cell; a subterminal series of faint dark spots bent outwards at vein 7 and to tornus. Hind wing red-brown; the interspaces of basal half whitish; a small whitish spot beyond the cell.

Hab. Brazil, São Paulo (*D. Jones*), type † ♀ in Coll. D. Jones. *Exp.* 56 millim.

2014. **Calidota albiceps**, insert (syn.):—

Ischnocampa farinosa, Druce, A. M. N. H. (7) xviii. p. 83 (1906).

Venezuela, type † ♂ in Coll. Joicey.

*2014 *a*. **Calidota conspicua.** (Plate LXVII. fig. 12.)

Opharus conspicuus, Druce, A. M. N. H. (7) xviii. p. 83 (1906).

♀. Head and thorax black-brown with a bluish tinge; palpi orange at base; neck with deep orange ring; shoulders and sides of pectus with orange stripes; abdomen orange with narrow black dorsal line, the ventral surface black-brown with a bluish tinge. Fore wing brown, the veins and a slight diffused discoidal lunule darker. Hind wing pale brown, the veins and cilia darker, the lower part of cell and area below it semihyaline.

Hab. Peru, S. Domingo (*Ockenden*), type † ♀ in Coll. Joicey. *Exp.* 52 millim.

*2014*b*. Calidota rudis. (Plate LXVII. fig. 13.)

Calidota rudis, Schaus, A. M. N. H. (8) vii. p. 613 (1911).

♂. Head brown, the vertex, tegulæ, and base of patagia orange, the last with a small black spot near base, the rest of thorax red-brown; abdomen orange with lateral series of small black spots, the ventral surface brown irrorated with ochreous. Fore wing pale red-brown with a faint purplish tinge and some slight reddish marks at base. Hind wing pale reddish brown, the inner area ochreous to beyond middle; the underside with the basal half of costal area ochreous.

Hab. Costa Rica, San Mateo (*Schaus*), type † ♂ in U.S. Nat. Mus. *Exp.* 48 millim.

Genus STIDZÆRAS.

	Type.
Stidzæras, Hmpsn. A. M. N. H. (8) iv. p. 364 (1909)	*strigifera*.

Proboscis fully developed; palpi smoothly scaled, upturned, the 2nd joint not reaching vertex of head; antennæ in both sexes with short branches ending in a bristle; hind tibiæ with two pairs of spurs; abdomen dorsally clothed with rough hair at base. Fore wing with vein 3 from long before angle of cell; 4, 5 in female from angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell; male with the cell filled by a semihyaline brand, veins 4, 5 stalked, the end of cell very oblique, 6 from well below upper angle, the areole large and broad and vein 7 curved. Hind wing with vein 3 from before angle of cell; 4, 5 stalked; 6, 7 from upper angle; 8 from towards end of cell.

In key differs from *Atolmis* and *Phryganopteryx* in the hind wing having vein 8 from towards end of cell, the fore wing with vein 3 from long before angle of cell, and from the former in veins 4, 5 being from the cell in the female.

2016*a*. Stidzæras strigifera.

Stidzæras strigifera, Druce, A. M. N. H. (7) xv. p. 467 (1905).

♂. Palpi and frons blackish; antennæ brown; vertex of head and tegulæ orange, the latter with small black spots; thorax and legs brown; pectus orange; abdomen yellow, dorsal fuscous bands

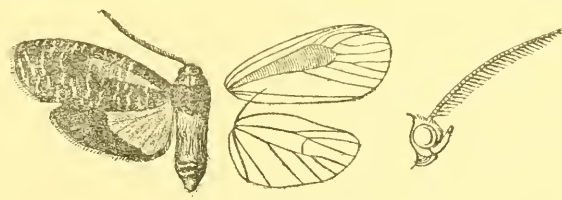

Fig. 97.—*Stidzæras strigifera*, ♂. ½.

on three penultimate segments and spot on anal segment, some small lateral spots. Fore wing brown with numerous fine pale striæ, the brand in cell semihyaline. Hind wing yellow, the apical

area from middle of costa to tornen at vein 1 brown with irregular inner edge; the underside with the brown on costal area extending nearly to base.

♀. Abdomen with large black spot on anal segment and segmental blackish bands on terminal segments of ventral surface.

Hab. VENEZUELA, Caura Valley (*Klages*), 2 ♂, 8 ♀. *Exp.*, ♂ 48, ♀ 50–56 millim. Type † ♂ in Coll. Joicey.

subsp. *occendeni.*

Stidzæras strigifera. ockendeni, Roths. Nov. Zool. xvii. p. 176 (1910).

♀. Head and tegulæ scarlet; abdomen with ventral black bands on three terminal segments: fore wing with the striæ obsolescent.

Hab. PERU, Carabaya, R. Huacamayo, La Union (*Ockenden*), type † ♀ in Coll. Rothschild.

*2016 *b.* Stidzæras evora.

Pitane evora, Druce, A. M. N. H. (7) xviii. p. 86 (1906).

Fore wing of male without the semihyaline brand in cell, the end of cell not oblique and veins 4, 5 from angle.

♂. Palpi and frons blackish; antennæ brown; vertex of head, tegulæ, and base of patagia orange, the vertex of head with fuscous spot, the tegulæ, shoulders, and base of patagia with small black spots; thorax reddish brown, the pectus and base of legs orange; abdomen with the basal half yellowish, the terminal half fuscous with slight greyish segmental lines, the ventral surface yellow with

Fig. 98.—*Stidzæras evora*, ♂. ½.

fuscous bands. Fore wing pale greyish brown, the terminal area pale reddish brown narrowing to tornus. Hind wing pale yellow, the terminal area fuscous brown, broad at costa, narrowing to tornus; the underside with the costal area brown except at base.

Hab. PERU, Pozuzo (*Egg*), type † ♂ in Coll. Joicey. *Exp.* 46 millim.

*2026 *a.* Mallocephala bogotensis. (Plate LXVII. fig. 14.)

Mallocephala bogotensis, Dogn. Hét. Nouv. Am. Sud, xi. p. 8 (1916).

♂. Head, thorax, and abdomen dark red-brown; antennæ with the shaft whitish above towards base; pectus rufous; legs streaked with greyish. Fore wing red-brown, the interspaces of discal area

whitish tinged with red-brown. Hind wing whitish, the veins, costal and terminal areas tinged with red-brown, the cilia with some white scales at tips except towards tornus.

♀. Abdomen with the terminal segments whitish, the wings aborted.

Hab. Colombia, Bogotá, type † ♂, ♀ in Coll. Dognin.. *Exp.* ♂ 36 millim.

2027. **Mallocephala deserticola**, insert (syn.) :—

Mallocephala insipida, Roths. Nov. Zool. xvii. p. 177 (1910).

Argentina, La Gama, type † ♂ in Coll. Rothschild.

2027 *a*. **Mallocephala brittoni**. (Plate LXVII. fig. 15.)

Mallocephala brittoni, Roths. Nov. Zool. xvii. p. 177 (1910).

♂. Head, thorax, and abdomen white slightly tinged with rufous; palpi brown; antennæ with the branches rufous. Fore wing white with a very faint rufous tinge. Hind wing white.

♀. Head, thorax, and abdomen rather more strongly tinged with rufous.

Hab. Argentina (*O. Thomas*), 1 ♂, 1 ♀. Entre Rios, La Solidad (*Britton*), type † ♂ in Coll. Rothschild. *Exp.* ♂ 34 millim.

2028 *a*. **Antarctia rhodosoma**. (Plate LXVII. fig. 16.)

Antarctia rhodosoma, Hmpsn. A. M. N. H. (7) xix. p. 239 (1907).

♂. Head fuscous with tuft of orange hair on basal joint of antennæ; palpi crimson with the 3rd joint black; tegulæ black, with dorsal crimson streak; patagia orange; thorax black; pectus and legs dark brown, the coxæ and femora crimson; abdomen crimson with dorsal and lateral series of small black spots, the ventral surface black. Fore wing pale reddish brown, the base yellowish, the subbasal area, cell, and a discal patch tinged with fuscous. Hind wing pale semihyaline brown, the cell and a streak in discal fold slightly tinged with fuscous.

Hab. Chili, Maquehue, Temuco (*Middleton*), 1 ♂ type. *Exp.* 38 millim.

2029 *a*. **Antarctia multifarior**. (Plate LXVII. figs. 17 ♂, 18 ♀.)

Antarctia multifarior, Burm. Descr. Rep. Arg. v. p. 452 (1878); Kirby, Cat. Het. p. 225.

♂. Head and thorax red-brown mixed with some grey-brown; antennæ with the shaft white at sides; abdomen dark red-brown with lateral orange-yellow fasciæ. Fore wing red-brown irrorated with fuscous brown; some yellowish at base of inner margin; a slight blackish spot in middle of cell and black discoidal lunule;

a curved blackish postmedial shade. Hind wing white, the inner margin clothed with yellow hair, the terminal area suffused with brown with a curved dark shade on its inner edge; a small discoidal spot; cilia whitish at tips; the underside with the costal area suffused with brown, the subterminal line maculate.

♀. Fore wing with the spot in cell and discoidal lunule blackish, the postmedial shade reduced to diffused spots on the veins; hind wing wholly suffused with brown, the yellow on inner margin confined to base, a black discoidal lunule, the underside with some yellowish below base of costa.

Hab. Argentina, Buenos Ayres (*Wilkinson*), 1 ♂, 1 ♀. *Exp.*, ♂ 40, ♀ 56 millim.

Larva. Clothed with black hair. Food-plants, low-growing herbs.

2029. Antarctia fusca, del. *A. multifarior.*

*2030 *a*. Antarctia steinbachi.

Antarctia steinbachi, Roths. Nov. Zool. xvii. p. 179, pl. 14. ff. 23, 32 (1910).

♂. Head, thorax, and abdomen brown mixed with greyish, the last with orange lateral fasciæ except towards extremity. Fore wing brown slightly irrorated with grey especially on terminal area; a blackish discoidal lunule; faint traces of a dark postmedial line, excurved to vein 4, then oblique; a curved diffused dark subterminal band. Hind wing semihyaline whitish, the veins and marginal areas brown; faint traces of a diffused dark subterminal line.

♀. Head and thorax tinged with fulvous; antennæ with the branches whitish; abdomen banded with fulvous, the terminal segments fulvous; fore wing fulvous suffused with brown, a slight black streak in middle of cell; hind wing fulvous yellow suffused with brown, a slight blackish discoidal lunule, the diffused subterminal line much more distinct and sinuous.

Hab. Argentina, Buenos Ayres (*Steinbach*), type † ♂, ♀ in Coll. Rothschild. Corrientes. *Exp.*, ♂ 30, ♀ 50 millim.

*2031 *a*. Antarctia cajetani. (Plate LXVII. fig. 19.)

Antarctia cajetani, Roths. Nov. Zool. xvii. p. 180 (1910).

♂. Head, thorax, and abdomen dark reddish brown; femora yellow above. Fore wing red-brown with fine pale streaks on the veins. Hind wing white, the costal and terminal areas suffused with brown; the underside with the costal area only suffused with red-brown.

Hab. Uruguay. Monte Video, type † ♂ in Coll. Rothschild. *Exp.* 38 millim.

*2033 *a*. Antarctia reversa. (Plate LXVII. fig. 20.)

Antarctia reversa, D. Jones, Trans. Ent. Soc. 1908, p. 150.

♂. Head and thorax dark red-brown; antennæ pale brown; mid and hind tarsi brownish white; abdomen orange-yellow with a diffused brown dorsal fascia except at extremity, the ventral surface dark brown. Fore wing yellowish white with red-brown streaks on the veins and broad costal fascia. Hind wing pure white, the costal edge brown; the underside with the costal area tinged with rufous, the termen with slight rufous line towards apex.

Hab. Brazil, Castro Paraña, type † ♂ in Coll. D. Jones. *Exp.* 36 millim.

2034 *a*. Antarctia atrifascia. (Plate LXVII. fig. 21.)

Antarctia atrifascia, Hmpsn. A. M. N. H. (7) xix. p. 239 (1907).

♂. Head and thorax rufous tinged with brown; palpi blackish; frons and pectus in front with blackish hair mixed; fore tibiæ blackish fringed with rufous hair; abdomen ochreous suffused with brown. Fore wing brownish ochreous irrorated with fuscous; a diffused black streak below median nervure to origin of vein 2; a slight streak in lower part of cell from middle to above middle of vein 5; a black discoidal point; a terminal series of small black spots. Hind wing pale ochreous suffused and irrorated with fuscous. Underside of fore wing suffused with fuscous; hind wing with black discoidal point.

Hab. Br. E. Africa, Aberdare Range (*R. Ford*), 1 ♂ type. *Exp.* 36 millim.

*2036 *a*. Antarctia uniformis. (Plate LXVIII. fig. 1.)

Antarctia uniformis, D. Jones, Trans. Ent. Soc. 1912, p. 421.

♀. Head, thorax, and abdomen pale red-brown mixed with whitish; antennæ white; abdomen with yellow lateral stripes and the extremity white. Fore wing pale red-brown mixed with whitish; a slight blackish discoidal bar. Hind wing whitish suffused with pale red-brown; cilia white at tips.

Hab. Brazil. Castro Paraña (*D. Jones*), type † ♀ in Coll. D. Jones. *Exp.* 46 millim.

2036 *b*. Antarctia fulvicollis. (Plate LXVIII. fig. 2.)

Antarctia fulvicollis, Hmpsn. A. M. N. H. (7) xv. p. 448 (1905).

♂. Head and thorax fuscous; tegulæ edged with fulvous, thorax with dorsal fulvous stripe; pectus fulvous; legs fulvous and fuscous; abdomen fulvous, a dorsal stripe and the ventral surface fuscous. Fore wing fuscous with some white hairs and some yellowish hair at base. Hind wing yellowish white, the veins and terminal area slightly suffused with fuscous; cilia fuscous.

Hab. Chili, Llanquihoe (*Elwes*), 1 ♂ type. *Exp.* 36 millim.

*2037 *a*. Antarctia nitida.

Antarctia nitida, D. Jones, Trans. Ent. Soc. 1908, p. 150.
Antarctia felderi, Roths. Nov. Rool. xvii. p. 180 (1910) ♀ (nec ♂), & xviii. pl. 6. f. 3.

♂. Head and thorax dark red-brown; antennæ white; femora yellow above; abdomen yellow with broad brown dorsal fascia except at extremity, the ventral surface brown. Fore wing dark red-brown. Hind wing white, the veins of costal and terminal areas brown, the termen and cilia brown from apex to vein 2; the underside with the costal area brown, a brown discoidal lunule.

♀. Hind wing wholly tinged with brown.

Hab. Brazil, Castro Paraña, type † ♂, ♀ in Coll. D. Jones. *Exp.*. ♂ 42, ♀ 46 millim.

*2037 *b*. Antarctia peruviana.

Antarctia peruviana, Roths. Nov. Zool. xvii. p. 180, pl. 14. f. 12 (1910).

♂. Head and thorax dark brown; antennæ brownish white; legs with whitish hair mixed; abdomen clothed with brownish white hair, brown at base. Fore wing uniform dark brown. Hind wing semihyaline white, the veins and terminal area suffused with pale brown; cilia white; the underside with the costal area suffused with brown.

Hab. Peru, Carabaya, Agualani (*Ockenden*), type † ♂ in Coll. Rothschild, Tinguri, R. Inambari. *Exp.* 32 millim.

*2037 *c*. Antarctia vulpecula. (Plate LXVIII. fig. 3.)

Antarctia vulpecula, Dogn. Ann. Soc. Ent. Belg. li. p. 230 (1907).

♂. Head and thorax bright rufous; palpi black; frons deep rufous; antennæ with the shaft dark brown; tibiæ and tarsi dark brown; abdomen grey-white, rufous at base. Fore wing pale brownish grey slightly tinged with rufous especially on costal and inner areas; cilia fuscous grey. Hind wing white slightly tinged with brown; cilia fuscous grey. Underside whitish; fore wing with the terminal area suffused with blackish, narrowing to tornus; hind wing with the cilia blackish on apical half.

Hab. S.E. Peru, Carabaya, Oconeque, type † ♂ in Coll. Dognin. *Exp.* 40 millim.

2037 *d*. Antarctia phæocera. (Plate LXVIII. figs. 4 ♂, 5 ♀.)

Antarctia phæocera, Hmpsn. A. M. N. H. (7) xv. p. 448 (1905).

♂. Head and thorax dark reddish brown; basal joint of antennæ and a tuft of hair on shoulders orange; abdomen orange, the ventral surface brown. Fore wing reddish brown with some orange hair at base of inner margin. Hind wing orange-yellow, the terminal area brown, widely so at costa and narrowing to a point at tornus.

♀. Abdomen with diffused dorsal brown bands; hind wing with the orange-yellow area more restricted.

Hab. E. Colombia, Medina, 1 ♂; Paraguay, Sapucay (*Foster*), 4 ♂, 2 ♀ type. *Exp.*, ♂ 42, ♀ 54 millim.

*2037 *c*. Antarctia gigantea. (Plate LXVIII. figs. 6 ♂, 7 ♀.)

Antarctia gigantea, D. Jones, Trans. Ent. Soc. 1908, p. 150.

♂. Head and thorax black-brown with a few white hairs; antennæ with the basal joint yellow, the shaft pale above; tegulæ narrowly edged with orange; femora orange above; abdomen fulvous orange with ill-defined brown bands, the ventral surface dark brown. Fore wing with the basal and costal areas and inner margin dark brown, the rest of wing ochreous tinged with brown and with the veins brown. Hind wing orange-yellow with faint dark maculate subterminal band except between veins 4, 3; the underside with the costal area suffused with dark brown from near base to beyond middle.

♀. Head and thorax with more white hairs; antennæ wholly black; tegulæ not edged with orange; fore wing wholly dark brown with the veins darker; hind wing dark brown with the basal area orange, a yellow mark on termen in submedian fold; cilia yellow tinged with brown.

Hab. Brazil, Castro Paraña, type † ♂, ♀ in Coll. D. Jones. *Exp.*, ♂ 58, ♀ 80 millim.

*2038 *a*. Antarctia fosteri.

Antarctia fosteri, Roths. Nov. Zool. xvii. p. 179 (1910), & xviii. pl. 6. ff. 4, 11.

♂. Head and thorax pale rufous; palpi and sides of frons dark brown; femora orange above; abdomen fulvous, dorsally clothed with brownish grey hair to near extremity. Fore wing creamy white tinged with pale glossy brown below costa, along median nervure, and on inner area to middle. Hind wing pure white; the underside with the costal area slightly tinged with ochreous.

♀. Head and thorax paler rufous; fore wing with the basal half tinged with pale rufous.

Hab. Paraguay, Sapucay (*Foster*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 40, ♀ 54 millim.

*2038 *b*. Antarctia pectinalis. (Plate LXVIII. fig. 8.)

Antarctia pectinalis, D. Jones, Trans. Ent. Soc. 1908, p. 150.

♂. Head and thorax fulvous; abdomen fulvous orange; femora orange above. Fore wing uniform fulvous. Hind wing white, the costa and termen except towards tornus narrowly fulvous; the underside with the costa fulvous yellow.

♀. Antennæ with the shaft dark brown; hind wing with the veins tinged with fulvous, the terminal area more tinged with fulvous, a diffused discoidal spot, stronger on underside which has the costal area fulvous.

Hab. Brazil, Castro Paraña, type † ♂, ♀ in Coll. D. Jones. *Exp.*, ♂ 44, ♀ 48 millim.

*2039 *a*. Antarctia magna.

Mallocephala magna, Roths. Nov. Zool. xvii. p. 177, pl. 14. f. 22 (1910).

♂. Head and thorax pale reddish brown, some orange at middle of tegulæ; antennæ ochreous white; femora orange above; abdomen orange, ventrally brown. Fore wing pale red-brown, the costal edge ochreous white; cilia whitish at tips. Hind wing white, the inner area clothed with orange hair; the termen tinged with brown from apex to vein 3; the underside with the costa tinged with brown.

Hab. N. Argentina, Salta (*Steinbach*), type † ♂ in Coll. Rothschild. *Exp.* 42 millim.

2039. Antarctia vulpina, insert (syn.):—

Antarctia felderi, Roths. Nov. Zool. xvii. p. 180 (1910), ♂ nec ♀, & xviii. pl. 6. f. 2.

Brazil, Rio Janeiro, type † ♂ in Coll. Rothschild.

*2042 *a*. Antarctia pallidivena. (Plate LXVIII. fig. 9.)

Antarctia pallidivena, Schaus, Trans. Am. Soc. xxx. p. 138 (1904).

♂. Head and thorax red-brown, the patagia pale at extremity, the pectus clothed mostly with orange fulvous hair; abdomen orange-fulvous with the ventral surface pale. Fore wing pale fulvous, the veins whitish; the cilia whitish. Hind wing whitish, the inner margin with some fulvous hair, the apex tinged with brown.

Hab. Brazil, Paraña, type † ♂ in U.S. Nat. Mus. *Exp.* 34 millim.

Page 450. Genus **STENUCHA**, insert:—

	Type.
Zamolis, Dyar, Pr. U.S. Nat. Mus. xxxviii. p. 235 (1907)	*dolens*.
Ardonipsa, Dyar, Pr. U.S. Nat. Mus. xlii. p. 50 (1912)	*dolens*.

2044. Stenucha dolens, insert (syrs.):—

Hypomolis minca, Schaus, Pr. U.S. Nat. Mus. xxix. p. 227 (1905).
Zamolis noctella, Dyar, Pr. U.S. Nat. Mus. xxxviii. p. 235 (1907).
Ardonipsa melas, Dyar, Pr. U.S. Nat. Mus. xlii. p. 50 (1912).

Mexico, Cuernavaca, Oaxaca.

*2046 *a*. Chlanidophora culleni.

Chlanidophora culleni, Brèthes, Ann. Mus. Buenos Ayres, xvi. p. 45. figs. (1908).

Differs from *C. patagiata* in the frontal process being larger, its apex irregularly vermiculate; fore wing with the white postmedial area broader, the black terminal area narrower, and with the dentate white line more distinct.

Hab. ARGENTINA, Mendoza, Chacenta (*Cullen*). *Exp.* 40 millim. This species is unknown to me.

Genus ACYCLANIA.

Acyclania, Dogn. Hét. Nouv. Am. Sud, iii. p. 15 (1911) ..... Type. *tenebrosa*.

Proboscis absent; palpi very short, porrect, clothed with hair; frons with pointed triangular process hollowed out below with a shorter pointed triangular process below it; eyes large, round; antennæ of male strongly serrate and fasciculate; thorax clothed with large rough scales and hair; tibiæ fringed with long hair, the hind tibiæ with the medial spurs absent; abdomen with lateral tufts of hair. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 9 and 10 anastomosing with 8 to form the areole, 6 from the areole, 7 from beyond it; 11 from cell. Hind wing with vein 3 from close to angle of cell; 5 from above angle; 6, 7 from upper angle; 8 from before middle of cell.

In key differs from *Mallocephala* in the frons having a pointed triangular process.

*2046 *b*. Acyclania tenebrosa.

Acyclania tenebrosa, Dogn. Hét. Nouv. Am. Sud, iii. p. 15 (1911).

♂. Head and thorax brownish grey mixed with black; palpi

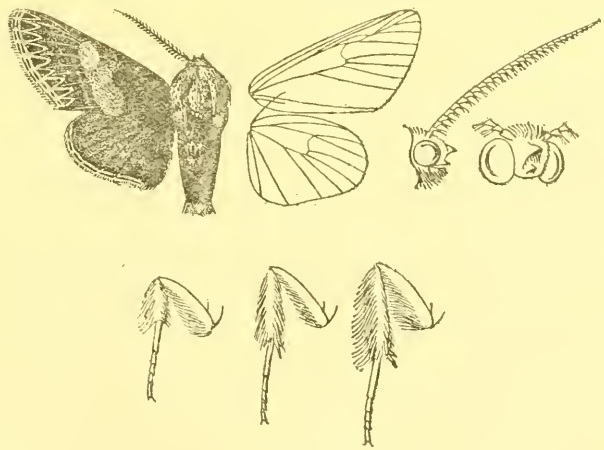

Fig. 99.—*Acyclania tenebrosa*, ♂. ½

and lower part of frons crimson; some crimson hair at base of tegulæ, on shoulders and upper edge of patagia; some crimson

hair below the wings, on the coxæ and on metathorax behind; abdomen black, the hair at base of sides and anal tuft crimson. Fore wing olive-brown thickly irrorated with black and some grey; a diffused black antemedial line, oblique below submedian fold; a diffused black postmedial shade, oblique below vein 4; terminal area suffused with black, the veins with pale streaks, the subterminal line whitish, very highly dentate to termen at the veins and with a whitish line before termen; cilia grey with black lines near base and at middle. Hind wing black-brown; an indistinct very highly dentate whitish subterminal line from costa to vein 2, dentate to termen at the veins and with whitish line before termen extending to vein 1; cilia whitish at tips; the underside with the subterminal line and the line before termen more distinct.

Hab. Argentina, Haut-Paraña, San Ignaci Missiones (*Wagner*), type † ♂ in Coll. Dognin. *Exp.* 54 millim.

*2049 *a*. Proschaliphora butti.

Proschaliphora butti, Roths. Nov. Zool. xvii. p. 180 (1910), & xviii. pl. 6. f. 7.

♀. Head and thorax white mixed with yellow, the frons, patagia, and patches on pro- and metathorax yellow; palpi and frontal process black at tips; antennæ with the basal joint black above; tibiæ and tarsi black ringed with white; abdomen yellow with black segmental lines except on dorsum. Fore wing silvery white; a narrow black subbasal band from costa to submedian fold; a narrow erect black antemedial band with slightly waved edges; a black discoidal bar confluent below with the narrow black postmedial band which is excurved from costa to vein 5, then incurved; a series of small black spots on terminal part of costa and termen; cilia yellow. Hind wing silvery white; a terminal series of small black spots from below apex to submedian fold; cilia yellow. Underside of fore wing suffused with fuscous except at apex; hind wing with small black discoidal spot and faint diffused fuscous shade just beyond the cell from costa to submedian fold.

Hab. Natal, Weenen; Cape Colony, Nieuwvelt Mts. near Beaufort West (*Mrs. Butt*), type † ♀ in Coll Rothschild. *Exp.* 32 millim.

2049 *b*. Proschaliphora albida. (Plate LXVIII. fig. 10.)

Proschaliphora albida, Hmpsn. A. M. N. H. (8) iv. p. 364 (1909).
Proschaliphora traiecta, Grunb. Denk. Med. Ges. Jena, xvi. p. 124, pl. iii. f. 7 (1910).

♂. Head and thorax white; the head yellowish in front; antennæ yellow with the basal joint black in front; pectus yellow; legs banded black and white; abdomen pale yellow with black bands. Fore wing silvery white; the costal edge orange; subbasal line represented by black striæ from costa and cell; antemedial line black, erect, minutely and irregularly waved; a black discoidal striga; postmedial line black, minutely waved, slightly excurved

below costa, somewhat oblique to lower angle of cell; then erect; a series of small black spots on apical part of costa and termen. Hind wing white; a small blackish discoidal spot and a terminal series of small black spots from apex to vein 2; cilia slightly tinged with yellow. Underside of fore wing wholly suffused with black; hind wing with the discoidal spot prominent.

Hab. "GERM. S.W. AFRICA," Okahandja; MOZAMBIQUE, 1 ♂; TRANSVAAL (*Pead*), 2 ♂, Kranspruit (*Janse*), 2 ♂ type, Johannesburg (*Hyde*), 1 ♂. *Exp.* 26–36 millim.

*2050 *a*. Procanthia distanti.

Lacipa distanti, Dewitz, Verh. Leop.-Carol. Akad. xlii. p. 68, pl. 3. f. 7 (1881).

♂. Head yellow; thorax grey-brown with two yellow points on metathorax; abdomen yellow with grey-brown segmental lines. Fore wing silvery white; subbasal black points below costa and cell; an antemedial yellow band with series of black points on its inner side, angled outwards on median nervure; the interspaces of medial area black except at costa and inner margin, leaving the orbicular and reniform stigmata white; a postmedial yellow band, incurved below vein 4, with conjoined black points on its inner side from costa to vein 5, and a series of black spots on outer side; a curved subterminal series of black spots. Hind wing whitish with some brown on termen towards apex and tornus.

Hab. CAPE COLONY. *Exp.* 38 millim. This species is unknown to me.

Genus **PARAPHRYGIA**, nov.

Type *P. rectangulata*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching to about middle of frons and moderately fringed with hair in front, the 3rd short and thickly sealed; frons smooth; eyes large, round; antennæ of male ciliated; tibiæ with all the spurs present; abdomen dorsally clothed with rough hair at base. Fore wing rather long and narrow, the apex rounded, the termen obliquely curved; vein 3 from near angle of cell; 4, 5 shortly stalked; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell; the male with elliptical patch of androconia in and below the cell towards extremity on underside. Hind wing ample, the costa rather arched towards apex and slightly clothed with upturned scales on underside, the apex rather obliquely truncate to vein 6; vein 2 from towards angle of cell; 3 and 5 shortly stalked, 4 absent; 6, 7 from upper angle; 8 anastomosing with the cell to beyond middle and highly arched towards apex.

In key differs from *Hyponerita* in the fore wing having veins 4, 5 stalked and the hind wing veins 3 and 5 stalked.

*2051 *a*. Paraphrygia rectangulata.

Phryganopteryx rectangulata, Kenrick, Trans. Ent. Soc. 1913, p. 600, pl. 31. f. 1.

♂. Head and thorax white tinged with grey-brown, the frons with lateral black spots above, the vertex of head with black spot with a crimson spot on each side of it; antennæ blackish; palpi

banded with black; tegulæ with black spots; patagia with black spot on outer edge near base and short streak near upper edge; dorsum of thorax with some crimson behind the tegulæ, a black dorsal streak and pair of spots on mesothorax; pectus ochreous, the coxæ with orange-yellow vein, the legs suffused with brown; abdomen crimson, the hair at base and anal tuft yellow, dorsal and lateral series of black spots, the ventral surface orange. Fore wing creamy white, the antemedial area suffused with reddish brown; an oblique diffused brown bar from middle of costa; a patch of brown suffusion on postmedial costal area, another patch below vein 5, extending to below end of cell and with an oblique bar from it to inner margin, an oblique bar from apex, and small subterminal patch between veins 5 and 4; a slight subbasal black streak below costa, spot on median nervure further from base, and spot on vein 1; an antemedial series of short black streaks on the veins; a small

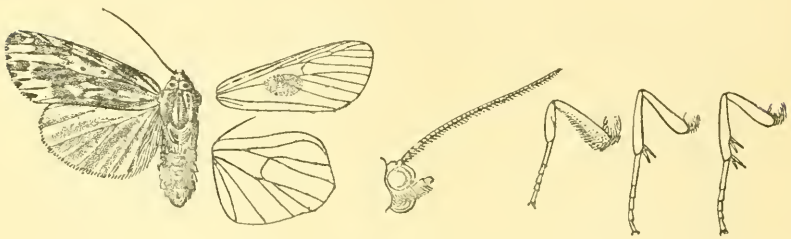

Fig. 100.—*Paraphrygia rectangulata*, ♂. ¾.

round spot in middle of cell, slight streaks on the oblique bar from middle of cell, short streaks in lower extremity of cell and on base of vein 3, spot on base of vein 2, and streaks at middle of submedian fold and on vein 1; the postmedial area with double series of short black streaks on the veins, oblique below vein 4; a subterminal series of short streaks on the veins and terminal series of spots. Hind wing pale yellow. Underside pale yellow, the costal area orange-yellow; fore wing with the costal edge blackish, a terminal series of black spots; hind wing with small blackish discoidal spot.

Hab. Centr. Madagascar, Nalamagaotna, 2500′ (*Pratt*), type† ♂ in Coll. Kenrick. *Exp.* 48–50 millim.

2053. **Euverna clio**, insert:—

ab. *jessica*, Barnes, Can. Ent. xxxii. p. 45 (1900); id. Contr. Nat. Hist. Lep. N. Am. i. 4. pl. xiii. ff. 9, 10.

Fore wing suffused with black leaving small patches of white especially on costa and termen; hind wing almost or entirely black.

*2053 *a*. **Euverna mexicana.** (Plate LXVIII. fig. 11.)

Euverna mexicana, Dogn. Hét. Nouv. Am. Sud, iii. p. 16 (1911).

♂. Head and thorax pure white, the patagia with black fasciæ defined on outer side by yellow; palpi black; antennæ with the branches black; fore femora and the tibiæ and tarsi black above, the hind tarsi at base only; abdomen white, the segments with dorsal yellow bands with patches of black scales between them except at base. Fore wing pure white; a black point at base and subbasal black point below costa; a black fascia on median nervure and vein 4 from near base to termen, its lower edge very slightly angled at veins 4, 3; a black streak on middle of inner margin; two short obliquely placed black streaks below apex, a minute subterminal streak on vein 3, a streak on terminal part of vein 1, and a terminal series of points from apex to vein 2. Hind wing pure white.

Hab. Mexico, type † ♂ in Coll. Dognin. *Exp.* 42 millim.

2054. **Parasemia plantaginis**, insert:—

ab. *rufa*, Tutt, Ent. Rec. ix. p. 191 (1897).
Hind wing red.
(a) *rufa-obsoleta*, Tutt, Ent. Rec. ix. p. 191 (1897).
Hind wing with few black markings.
(b) *rufa-matronalis*, Tutt, Ent. Rec. ix. p. 191 (1897).
Hind wing heavily marked with black.

ab. *lutea*, Tutt, Ent. Rec. ix. p. 191 (1897).
♂. Hind wing bright yellow.
(a) *lutea-obsoleta*, Tutt, Ent. Rec. ix. p. 191, pl. v. f. 1 (1897).
Hind wing with few black markings.

ab. *flava*, Tutt, Ent. Rec. ix. p. 191 (1897).
♂. Hind wing pale yellow.
(a) *flava-obsoleta*. Tutt, Ent. Rec. ix. p. 191 (1897).
Hind wing with few black markings.
(b) *flava-matronalis*, Tutt, Ent. Rec. ix. p. 191 (1897).
Hind wing heavily marked with black.

ab. *alba*, Tutt, Ent. Rec. ix. p. 191 (1897).
Hind wing white.
(a) *alba-obsoleta*, Tutt, Ent. Rec. ix. p. 191 (1897).
Hind wing with few black markings.
(b) *alba-matronalis*, Tutt, Ent. Rec. ix. p. 191 (1897).
Hind wing heavily marked with black.

ab. *bicolor*, Ratz, Mitth. Schweiz. Ent. Ges. viii. p. 224 (1890).
Hind wing white with the black markings reduced.

ab. *elegans*, Ratz, Mitth. Schweiz. Ent. Ges. viii. p. 220 (1890); Seitz, Gr.-Schm. pal. ii. p. 81, pl. 16*e*.

Hind wing white, the pale markings much reduced.

ab. *herrichoviensis*, Schultz, Ent Zeit. Guben, xviii. p. 85 (1904).

Yellow, the white streaks and band of fore wing more or less confluent.

ab. *brunnescens*, Schawerda, Verh. zool.-bot. Ges. Wien, lvi. p. 240 (1906); Seitz, Gr.-Schm. pal. ii. p. 81, pl. 16*e*.

♂. Hind wing with the yellow suffused with brown.

ab. *confluens*, Schawerda, Jahrb. Wien. Ent. Ver. xvii. p. 70 (1906); Seitz, Gr.-Schm. pal. ii. p. 81, pl. 16*f*.

Hind wing white, the black reduced to narrow terminal spots.

ab. *flavipennis*, Schawerda, Verh. zool.-bot. Ges. Wien, lvi. p. 231 (1906).

Hind wing of female with the markings yellow.

ab. *borussia*, Schawerda, Verh. zool.-bot. Ges. Wien, lvi. p. 231 (1906).

Similar to ab. *hospita* but wings without any yellow.

ab. *subalpina*, Schawerda, Jahrb. Wien. Ent. Ver. xvii. p. 69 (1906).

Hind wing with the basal half black, the outer half yellow.

ab. *raetzeri*, Schawerda, Jahrb. Wien. Ent. Ver. xvii. p. 69 (1906).

Wings uniform black.

ab. *nigrociliata*, Schawerda, Jahrb. Wien. Ent. Ver. xvii. p. 69 (1906).

Wings with the cilia black.

ab. *flavoradiata*, Schawerda, Verh. zool.-bot. Ges. Wien, lviii. p. (29) (1908).

Hind wing black with orange streaks in the cell and on inner area.

var. *uralensis*, Krul. Rev. Russ. Ent. ix. p. 253 (1909).

Similar to ab. *hospita* but hind wing with the black margins reduced.

ab. *patruelis*, Jachontov, Rev. Russ. Ent. xii. p. 40 (1912).

Similar, but abdomen and underside of hind wing yellow with minute black spots.

ab. *interrupta*, Schawerda, Verh. zool.-bot. Ges. Wien, lx. p. (90) (1910).

Fore wing with broad yellow markings, the fascia on inner area unbroken.—Bosnia.

ab. *insularum*, Seitz, Gr.-Schm. pal. ii. p. 81, pl. 16*f*. (1910).

Hind wing with the black markings broader.—Orkneys.

ab. *albulæ*, Kilian. ? ined. Seitz, Gr.-Schm. pal. ii. p. 81 (1910).

Fore wing with the yellow tinged with red.

ab. *altaica*, Stand. ined. Seitz, Gr.-Schm. pal. ii. p. 81, pl. 16*f* (1910).

Hind wing of female with the black hardly more extensive than in the male.—Altai.

caucasica ab. *flava*, Seitz, Gr.-Schm. pal. ii. p. 82 (1910).

Hind wing yellow.

ab. *rondoui*, Oberth. Bull. Soc. Ent. Fr. 1911, p. 311, & Ét. Lép. Comp. vi. p. 326, pl. cxxiii. f. 1087.

Fore wing white above and below with slight black markings on costa and at apex; hind wing yellow with some yellowish black scales on termen.

ab. *læmmermanni*, Oberth. Ét. Lep. Comp. v. 1. p. 82 (1911), & vi. p. 326, pl. cxxii. ff. 1089–90.

Hind wing with red streak on inner margin.

2055. Eucharia festiva, insert :—

ab. *collaris*, Grüm-Grschm. Ann. Mus. St. Pet. iv. p. 462 (1899).

Tegulæ and head between eyes red.—China, Inshan Mts. between Dolon-noor and Peking.

ab. *wassi*, Aigner, Rovart Lapok Buda-Pesth, xiii. p. 74 (1906).

Abdomen and hind wing purplish yellow-brown.

ab. *lugens*, Schultz, Ent. Zeitsch. Guben, xxii. p. 183 (1908).

Fore wing with the bands broadened, sometimes entirely obscuring the ground-colour.

ab. *bivittata*, Schultz, Soc. Ent. xv. p. 18 (1900).

Fore wing with the antemedial band double.

ab. *attenuata*, Oberth. Ét. Lép. Comp. vi. p. 318, pl. cviii. f. 981 (1912).

ab. *albinisans*, Oberth. Ét. Lép. Comp. vi. p. 318, pl. cviii. ff. 982–3 (1912).

ab. *tristis*, Oberth. Ét. Lép. Comp. vi. p. 318, pl. cviii. f. 984 (1912).

ab. *funebris*, Oberth. Ét. Lép. Comp. vi. p. 318, pl. cviii. ff. 985–6 (1912).

ab. *luctuosa*, Oberth. Ét. Lép. Comp. vi. p. 318, pl. cix. f. 987, & cxvi. f. 1027 (1912).

ab. *mœrens*, Oberth. Ét. Lép. Comp. vi. p. 318, pl. cix. ff. 988–9 (1912).

ab. *iliensis*, Wagner, Int. Ent. Zeit. vii. p. 4 (1913).

ab. *fischeri*, Diemer, Int. Ent. Zeit. vii. p. 97 (1913).

ab. *viertli*, Skala, Verh. Ver. Brünn, li. p. 200 (1913).

ab. *albicans*, Rangnow, Ent. Zeitschr. Guben, xxvii. p. 79 (1913).

*2055 *a*. Eucharia culoti.

Chelonia culoti, Oberth. Ét. Lép. Comp. vi. p. 322, pl. cxvi. f. 1028 (1912).

♀. Head and tegulæ pale ochreous, the latter with black spots; thorax black with pair of pale ochreous stripes on prothorax and scarlet-tinged annuli on metathorax; antennæ black; abdomen pale brownish with lateral series of black striæ except at base and extremity with some scarlet round them and the base scarlet. Fore wing buff; a small black spot at base of costa followed by points on and below costa; an oblique antemedial black band

defined at sides by deeper buff; a similar medial band, oblique to median nervure then erect; a slight black discoidal lunule; a similar postmedial band excurved to vein 4, then incurved, an oblique subterminal bar from costa to vein 4 and a bar from vein 2 to inner margin; cilia black. Hind wing scarlet with medial black band defined at sides by buff, slightly incurved at vein 2 and not quite reaching inner margin; a similar postmedial spot on costa and subterminal bars from costa to vein 4 and between veins 3 and 1; cilia black.

Hab. E. Siberia. *Exp.* 46 millim. This species is unknown to me.

Page 463. Genus **ARCTIA**, insert :— Type.

Chelonia, Godart, Lép. Fr. iv. p. 299 (1822), nec Al. Brongniart Rept. 1800 ..... *caia.*
Epicallia, Hübn. Verz. p. 182 (1827) ..... *villica.*

2059. **Arctia caia**, insert :—

ab. *phantasma*, Niepelt, Insectenborse, 1905, p. —.

Fore wing uniform creamy white; hind wing without spots.

ab. *obscura*, Cockerell, ? ined. Seitz, Gr.-Schm. pal. ii. p. 98 (1910).
futura, Fick. ? ined. Seitz, Gr.-Schm. pal. ii. p. 98 (1910).
glaseri, Stichel, Berl. Ent. Zeit. liii. p. 191, pl. v. f. 5 (1909).

Fore wing dark brown without markings; hind wing black.

ab. *luneburgensis*, Machl.-Stein, ? ined. Seitz, Gr.-Schm. pal. ii. p. 98 (1910).

ab. *syltica*, Wern. ? ined. Seitz, Gr.-Schm. pal. ii. p. 98 (1910).

ab. *dealbata*, Schultz, ? ined. Seitz, Gr.-Schm. pal. ii. p. 98 (1910).

vars. tending towards *phantasma*.

ab. *clarki*, Tutt, Ent. Rec. xxi. p. 88, pl. v. (1909).

var. tending towards *obscura*.

ab. *rubrodorsalis*, Schultz, Ent. Zeitschr. Guben, xxii. p. 183 (1908).

Abdomen with the spots absent.

ab. *pallens*, Schultz, Ent. Zeitschr. Guben, xxii. p. 183 (1908).

Fore wing brownish yellow.

ab. *lutescens*, Tutt, Ent. Rec. iii. p. 254 (1892).
flava, Aigner, Rovart. L. Buda-Pesth, xiii. p. 74 (1906).

Hind wing sulphur yellow.

ab. *standfussi*, Rober, ? ined. Seitz, Gr.-Schm. pal. ii. p. 98 (1910).

Small specimens obtained by interbreeding.

ab. *confluens*, Rebel, Berge's Schmett. ix. p. 430 (1910); Seitz, Gr.-Schm. pal. ii. p. 98, pl. 18 *a*.

Fore wing with the white reduced; hind wing deep red, the spots more or less confluent.—Lake Ladoga.

ab. *lusitanica*, Spüler, Schmett. Eur. ii. p. 135 (1906); Seitz, Gr.-Schm. pal. ii. p. 98, pl. 18 *b*.

ab. *jeanneti*, Oberth. Ét. Lép. Comp. v. i. p. 130 (1911), & vi. p. 321, pl. cxiv. f. 1014.

Fore wing with the white markings tinged with red.

ab. *nigrociliata*, Hffm. Ent. Rdsch. xxix. p. 157 (1912).

Hind wing with the cilia dark.

vars. Oberth. Ét. Lép. Comp. vi. pp. 320–2, pl. cxi–cxvi. ff. 999–1026 (1912).

Arctia caja, *amboinensis*, Swinh. A. M. N. H. (8) xviii. p. 484 (1916).

Amboina, type † ♂, ♀ in Coll. Swinhoe. These specimens are exactly like many of those from Europe, and the locality is certainly wrong.

Arctia caja, *parva*, Roths. Nov. Zool. xvii. p. 181 (1910).

♂. A small form; fore wing with the antemedial white band extending to submedian fold and the medial bar to median nervure.

Labrador, type † ♂ in Coll. Rothschild.

subsp. *americana* :—

Egg. Gibson, Can. Ent. xxxii. p. 321 (1900).

Semiovoid, pale yellowish, smooth, shiny.

Larva. Stage I. Creamy white; head black; each somite with transverse series of black tubercles with long hairs, black on dorsum, silvery at sides; thoracic shield black.

Stage II. Dirty yellowish white, marked as before.

Stage III. Blackish grey; a dorsal white stripe with yellowish red dorsal line; a lateral yellowish white band with a reddish tinge.

Stage IV. Black; the 1st, 2nd, 3rd, and 4th somites with reddish hair mixed with some black and silvery hair; the dorsal band and line obsolete; stigmatal band interrupted.

Stage V. Black, the anterior segments rusty; the warts of dorsal area white at apex.

Stage VI. The tubercles with long silvery white hairs and also short white bristles, on thoracic segments the bristles are rusty red with only a few silvery hairs; the bristles below the stigmata fawn coloured.

Stage VII. Black with rusty red sides, the 1st segment with transverse dorsal patch of rusty bristles turning down over the face; tubercles whitish with black bristles and silvery hair from those above spiracles. Food-plant, *Chenopodium album*. 8–10.

Arctia caja var. *phæosoma*.

Larva. Wileman, Phil. Journ. Sci. xii. p. 242, pl. ii. ff. 10–13 (1917).

2060. **Arctia tibetica**, insert :—

ab. *pulchrior*, Seitz, Gr.-Schm. pal. ii. p. 98 (1910).

Fore wing with the markings larger; hind wing with the discal spot and subterminal band not interrupted.

ab. *aurantiaca*, Seitz, Gr.-Schm. pal. ii. p. 98 (1910) for ab. 1.

subsp. *alpherakii*, Staud. Ent. Mo. Mag. xxii. p. 258 (1886).

Arctia intercalaris, Grüm-Grschm. Rom. Mém. iv. p. 532, pl. 19. f. 3 (nec Ev.).

var. *ilithya*, Böttcher, Ent. Zeit. Guben, xix. p. 55, f. 3 (1905).

Fore wing darker red-brown; hind wing without the black medial spots on upper side except sometimes a small spot at origin of vein 2.

W. Turkestan, Hissar Mts. in Coll. Rothschild; E. Turkestan, Naryn. Staudinger applied the name to the specimens afterwards figured by Grüm-Grishmailo.

2061. Arctia intercalaris.

del. *A. alpherakii*.

*2061 *a*. Arctia alpina.

Bombyx alpina, Quens. Acerbi's Travels N. Cape, ii. p. 253, pl. 1. f. 4 (1802); Spånberg, Ent. Tidskr. i. p. 91, pl. 1. f. 1 (1880); Seitz, Gr.-Schm. pal. ii. p. 95, pl. 17 *e*.

Arctia thulea, Dalm. Anal. Ent. p. 92 (1823); Spångb. Ent. Tidskr. i. p. 92, pl. 1. f. 1; Alph. Rom. Mém. ix. p. 197, pl. 2. ff. 6, 7.

Black; tegulæ at sides and base of patagia with white spots; abdomen yellow at sides towards extremity. Fore wing with conjoined basal black spots on costa and below cell confluent with a subbasal irregular patch from costa to median nervure, a spot below the cell and one nearer the base above inner margin; antemedial and medial irregular patches from costa to median nervure, antemedial spots below the cell and above inner margin and medial spots above and below vein 2 and above inner margin; a small spot just beyond the cell; a curved postmedial series of spots in the interspaces, confluent towards costa, and a subterminal series, those above and below vein 5 displaced towards termen, the spot below vein 4 confluent with the postmedial series and the spot at tornus larger; cilia white on apical half. Hind wing with the basal half black, the terminal half yellow tinged with red on costal area and leaving a yellow lunule in the cell before the black discoidal lunule, the black extending to tornus where it is confluent with an irregular subterminal band from vein 3 to tornus; a small spot on costa, a large spot between veins 6 and 4 and some black on termen between veins 2 and 4. Underside of fore wing yellow with the costal area red, the black markings much reduced.

Hab. Lapland; Finland; Altai. *Exp.* 52 millim.

*2061 *b*. Arctia souliei.

Chelonia souliei, Oberth. Launay, Hist. Miss. Thibet, ii. p. 413, pl. ff. 4, 5 (1903).

♂. Head red; tegulæ yellow; thorax black, the patagia edged with buff and the dorsum with buff stripes; legs red and black; abdomen red with dorsal series of black spots, the ventral surface with black bands. Fore wing dark brown; six rather bar-shaped

buff patches on costal area; a curved stripe from base of inner margin to middle of submedian fold; a rather oblique and irregular postmedial band from below vein 3 to inner margin; an oblique band from vein 4 to termen at vein 1, dilated above and below, and a bidentate subterminal mark between veins 6 and 4. Hind wing red; a black stripe along vein 1 to beyond middle, irregular bars at middle of cell and on discocellulars, and a maculate subterminal band. Underside of fore wing paler; hind wing pink towards inner margin, paler towards costa.

♀. Fore wing with the postmedial and subterminal bands entire and connected at vein 4; hind wing orange-red with an additional black stripe along median nervure, the bars at middle of cell and on discocellulars reduced, the subterminal band interrupted between veins 4, 3, a bar on termen between veins 4, 3; the underside with some of the black markings obsolescent.

Hab. W. China, Ta-chien-lu. *Exp.*, ♂ 56, ♀ 60 millim. This species is unknown to me.

*2061 *c*. Arctia ruechbeili. (Plate LXVIII. fig. 12.)

Arctia rueckbeili, Püng. Iris, xiv. p. 190, pl. iii. f. 11 (1901).

♂. Head and thorax pale grey-brown; palpi crimson at base; antennæ with the basal joint crimson; tegulæ white at base, crimson underneath; fore tarsi in front and femora above pale crimson; abdomen yellow with dorsal series of fuscous bands, the ventral surface pale grey-brown with ventral yellow spots tinged with pink. Fore wing pale grey-brown with an irregular curved white subbasal band from costa to above inner margin connected with the base by streaks in cell, in submedian fold, and on vein 1; an antemedial patch on costa, its lower extremity produced to median nervure, and spots above and below vein 1; one or two small spots beyond it above and below vein 1, a conical medial spot from costa to discal fold; a postmedial series of spots, three conjoined towards costa, then an incurved series of spots above veins 2, 1 and above inner margin; a subterminal series of spots excurved between veins 6 and 4 and ending in a rather V-shaped spot above tornus, the spots above veins 3 and 7 minute, or the latter absent. Hind wing yellow; an antemedial pale brown band expanding at median nervure and vein 1; a medial band incurved from costa to lower angle of cell, then oblique to submedian fold and with a spot below it on vein 1; a subterminal band broad and extending to apex at costa and ending on termen above tornus, connected with termen by streaks on the veins.

Hab. E. Turkestan, Aksu, type † ♂ in Coll. Püngeler. *Exp.* 64 millim.

2062. **Arctia villica**, insert:—

ab. *fasciata*, Spüler, Eur. Schmett. ii. p. 135 (1906).

Fore wing with the spots forming bands.

ab. *ursula*, Schultz, Ent. Zeitschr. Guben, xviii. p. 111 (1904).
radiata, Spüler, Eur. Schmett. ii. p. 135 (1906).
Fore wing with the spots conjoined into longitudinal fasciæ,

ab. *paucimaculata*, Spüler, Schmett. Eur. ii. p. 135 (1906).
Fore wing with the spots reduced in size.

ab. *strandi*, Schultz, Ent. Zeitschr. Guben, xviii. p. 109 (1904).
medionigra, Spüler, Schmett. Eur. ii. p. 135 (1906).
Fore wing with the spots reduced in number.

ab. *neglecta*, Schultz, Ent. Zeitschr. Guben, xviii. p. 114 (1904).
Fore wing with only traces of black markings.

ab. *caliginosa*, Schultz, Ent. Zeitschr. Guben, xviii. p. 110 (1904).
Fore wing almost entirely black.

ab. *illustris*, Schultz, Ent. Zeitschr. Guben, xviii. p. 113 (1904).
Fore and hind wings almost without spots.

ab. *contracta*, Schultz, Ent. Zeitschr. Guben, xviii. p. 110 (1904).
Hind wing with black bands.

ab. *krodeli*, Schultz, Ent. Zeitschr. Guben, xviii. p. 113 (1904).
Hind wing with the costal area blackened.

ab. *pallida*, Schultz, Ent. Zeitschr. Guben, xviii. p. 105 (1904).
Fore wing with the ground-colour grey.

ab. *brunnescens*, Schultz, Ent. Zeitschr. Guben, xviii. p. 105 (1904).
Hind wing with the ground-colour brown.

var. *bellieri*, Failla, Nat. Sicil. vii. p. 203 (1880).
chavigneriei, Failla, Nat. Sicil. x. p. 28 (1891).
Ground-colour of fore wing and spot of hind wing chestnut brown.—Sicily.

subsp. *arabum*, Oberth. Ét. Lép. Comp. iv. p. 678, pl. liii. f. 447 (1910).
Algeria = *conencai*.

ab. *nigricans*, Oberth. Ét. Lép. Comp. vi. p. 318, pl. cix. f. 992 (1912).

ab. *fere-unicolor*, Oberth. Ét. Lép. Comp. vi. p. 318, pl. cx. f. 993 (1912).

ab. *confluentissima*, Oberth. Ét. Lép. Comp. vi. p. 319, pl. cx. f. 995 (1912).

ab. *nigrella*, Oberth. Ét. Lép. Comp. vi. p. 319, pl. cx. f. 996 (1912).

ab. *brittanica*, Oberth. Ét. Lép. Comp. vi. p. 319, pl. cx. f. 998 (1912).

2064. Metacrias strategica.

♀. Apterous, remains in cocoon laying its eggs in the wool that lines it.

Ovum. Quail, Tr. N.Z. Inst. xxxiv. p. 227, pl. xiii. ff. 8–10 (1902).
Spherical; shell thin with irregular hexagons, pale yellow.

Larva. Young. Head, 1st and two terminal somites smaller; colour yellowish brown with numerous dark tubercles; seta black, the skin covered with minute secondary hairs.

Pupa. In an oval cocoon of coarse dark brown silk mixed with hairs.

2066. **Teracotona euprepia**, insert (syns.) :—

Teracotona pardalina, Bartel, Iris, xvi. p. 199, fig. (1903).
Teracotona trifasciata, Bartel, Iris, xvi. p. 201 (1903).

2067 *a*. **Teracotona quadripunctata.**

Teracotona rhadophæa var. *quadripunctata*, Wichgraf, Ent. Zeit. Guben, xxii. p. 106, fig. (1908).
Teracotona rhadophæa var. *obscurior*, Wichgraf, Ent. Zeit. Guben, xxii. p. 106 (1908).
Teracotona buryi, Roths. Nov. Zool. xvii. p. 181 (1910), & xviii. pl. 6. f. 23.

Head and thorax white slightly tinged with pale red-brown ; palpi yellow, crimson above and black at tips ; antennæ black except at base ; tegulæ with raised dorsal brown ridge and black points at tips ; patagia at base and shoulders with small black spots ; some crimson below shoulders and wings ; femora crimson above, the femoro-tibial joints black, the tarsi black ringed with ochreous and crimson ; abdomen scarlet with subdorsal series of black patches except at base and extremity and black dorsal patch on anal segment, the ventral surface yellow, lateral and sublateral series of black spots. Fore wing creamy white thickly striated and suffused with pale red-brown, the inner half of basal area and the postmedial area whiter ; a slight rufous antemedial line, angled at median nervure, then oblique ; a small black discoidal spot ; a pale rufous postmedial line, somewhat dentate and oblique to vein 4, then incurved ; a subterminal series of indistinct lunulate whitish spots and a blackish point at discal fold. Hind wing scarlet ; a black discoidal lunule and subterminal black spots at discal fold and veins 2 and 1.

ab. 1. *obscurior*. Fore wing with black subterminal lunules above and below vein 6.

Hab. Gold Coast (*Jones*), 1 ♂, Gambaga (*Bury*), type† ♀ *buryi* in Coll. Rothschild ; Togoland ; N. Nigeria, Kano (*F. G. Brown*), 1 ♀. *Exp.*, ♂ 50, ♀ 60 millim.

*2067 *b*. **Teracotona pruinosa.** (Plate LXVIII. fig. 13.)

Teracotona pruinosa, de Joan. Bull. Soc. Ent. Ital. xliv. p. 123 (1912).

♀. Head and thorax red-brown mixed with ochreous ; abdomen scarlet, the anal tuft and ventral surface red-brown mixed with ochreous. Fore wing red-brown thickly striated with white ; a black discoidal bar. Hind wing scarlet ; a narrow black discoidal lunule ; cilia yellow.

Hab. Eritrea, co-type † ♀ in Coll. de Joannis. *Exp.* 54 millim.

2068. **Teracotona submacula**, the reference should be *Spilosoma submacula*, Wlk. iii. 672 (1855).

*2068 *a*. Teracotona homeyeri.

Teracotona homeyeri, Roths. Nov. Zool. xvii. p. 181 (1910), & xviii. pl. 6. ff. 9, 12.

Head and thorax buff; palpi with some crimson at base and black tips; antennæ black except towards base; tegulæ with slight crimson dorsal streak, the patagia with black points at base and shoulders and crimson upper edge, crimson fasciæ below shoulders and wings; legs crimson above, the femoro-tibial joint black, the tarsi ringed with black; abdomen yellow with crimson hair at base, the 4th segment with black lateral spots followed by subdorsal bands on four following segments, the ventral surface white, the segments edged with yellow hair. Fore wing buff, the costal edge crimson to beyond middle; a small black discoidal spot. Hind wing white.

♀. Fore wing with two black points in base of cell and slight black discoidal lunule, the inner margin with crimson streak; hind wing yellow buff, the inner area suffused with crimson, a black discoidal lunule, cilia white; the underside of fore wing and costal area of hind wing suffused with crimson.

Hab. "Germ. E. Africa," Manow, ♀; Angola, Pungo Andongo (*Homeyer*), type † ♂ in Coll. Rothschild. *Exp.*, ♂ 50, ♀ 62 millim.

2069. Teracotona subterminata, insert (syn.) :—

Seirarctia sordida, Roths. Nov. Zool. xxiv. p. 483 (1917).

The male type has no crimson suffusion in the upper part of cell of fore wing but the other specimen from the same locality has.

Abyssinia, Harrar (*Kristensen*), type † ♂ in Coll. Rothschild.

2070. Carcinarctia metamelæna.

♀. Head and thorax scarlet mixed with brown; abdomen with the hair at base and anal tuft crimson; fore wing pale scarlet irrorated and striated with black, the veins deeper scarlet, a distinct black discoidal spot and subterminal spot in discal fold; hind wing pale crimson with distinct black discoidal spot, and subterminal spots from vein 6 to below 5 and above and below veins 2 and 1.

Br. E. Africa, Ndimu (*Betton*), 1 ♀. *Exp.* 46 millim.

2070 *a*. Carcinarctia læliodes. (Plate LXVIII. fig. 16.)

Carcinarctia lælioides, Hmpsn. Nov. Zool. xxiii. p. 239 (1916).

♂. Head and thorax scarlet mixed with some brown; antennæ with the shaft whitish; palpi black; fore and mid tibiæ suffused with black; the tarsi black: abdomen scarlet with blackish bands except at base. Fore wing scarlet irrorated with brown; an obscure blackish subterminal spot at discal fold. Hind wing paler scarlet; a black discoidal spot and a slight subterminal spot at

discal fold. Underside scarlet; fore wing with the costa irrorated with brown, a slight blackish discoidal spot; hind wing with black discoidal lunule.

Fore tibiæ with the claws small.

Hab. Br. E. Africa, Aberdare Mts., 10,000′ (*Woosnam*), 1 ♂ type. *Exp.* 40 millim.

*2072 *a.* Cymbalophora haroldi.

Cymbalophora haroldi, Oberth. Ét. Lép. Comp. v. (2) p. 123 (1911), id. idem. vi. pl. cxix. ff. 1045–1049, & pls. H. *l & m.*

♂. Head creamy white, the sides of head black; thorax ochreous and creamy white mixed with blackish; abdomen pale crimson mixed with blackish and with black dorsal stripe, the basal segment creamy white with subdorsal blackish streaks and some crimson hair from base of sides, the anal tuft and ventral surface creamy white. Fore wing creamy white; an obliquely curved subbasal black band from below costa to vein 1; a large rather irregular antemedial spot from costa to below the cell and a quadrate spot from submedian fold to above inner margin; a curved medial band from costa to below vein 2 and quadrate spot from submedian fold to above inner margin; an oblique postmedial band from below costa to vein 4 and band from vein 3 to above inner margin; a subterminal patch below apex and rather triangular patches from termen at middle and above tornus confluent with the two portions of the postmedial band. Hind wing scarlet, the costa creamy white with ante- and postmedial fuscous bars from the costa; an oblique black band from costa before apex to termen at vein 3 with a small spot beyond it at apex and a narrower band from vein 3 to the submedian fold; cilia yellowish at tips. Underside of fore wing with the basal half and inner area tinged with scarlet.

ab. 1. Fore wing with the markings on basal area confluent, also those on medial and terminal areas; hind wing with the markings on terminal area confluent.

♀. Wings aborted and small, the black markings much reduced, especially those on medial area of fore wing.

Hab. Algeria, S. Oran, Aflou, Guelt-es-Stel in Coll. Rothschild. *Exp.*, ♂ 24–32, ♀ 18 millim.

Larva. Oberth. Ét. Lép. Comp. v. 2. pl. J. *l.* & vi. pl. cxxxvi. ff. 1192–1200. Food-plant, barley.

2073. Cymbalophora pudica.

ab. *gradli*, Schultz, Ent. Zeit. Guben, xviii. p. 141 (1905).
Melanistic.

ab. *cohærens*, Schultz, Ent. Zeit. Guben, xviii. p. 141 (1905).
Fore wing with the markings confluent.

ab. *flaveola*, Schultz, Ent. Zeit. Guben, xx. p. 26 (1906).

ab. *flavescens*, Oberth. Ét. Lép. Comp. vi. p. 148, pl. lxxviii. f. 708 (1911).
The crimson markings replaced by yellow.

ab. *fumosa*, Oberth. Ét. Lép. Comp. vi. p. 148, pl. lxxviii. f. 707 (1911).
Fore wing with the black markings more diffused except on terminal area; hind wing tinged with fuscous.

ab. *magnifica*, Roths. Nov. Zool. xxi. p. 354 (1914).
Larger and more strongly tinged with pink.—Algeria.

2074. Cymbalophora oertzeni.

ab. *lutescens*, Culot, Bull. Soc. Ent. Fr. 1909, p. 271.
Abdomen and wings ochreous yellow.

ab. *cremonai*, Culot, Bull. Soc. Ent. Fr. 1909, p. 271.
Hind wing without trace of black spots.

2074 *a*. Cymbalophora pouelli.

Cymbalophora powelli, Oberth. Bull. Soc. Ent. Fr. 1910, p. 333; id. Et. Lép. Comp. vi. pl. lxxi. f. 657.

♂. Head and thorax velvety black; antennæ black-brown; palpi with creamy white spots on the joints, the shoulders with creamy white patches; pectus and coxæ with crimson patches; legs creamy white, the tibiæ and tarsi banded with black; abdomen crimson with dorsal series of small black spots and large spot on anal tuft, the ventral surface creamy white with lateral, sublateral, and ventral series of black spots. Fore wing creamy white, the costal edge black towards base; oblique subbasal black bars below costa and above inner margin; a quadrate antemedial patch with oblique lower edge from costa to above submedian fold and a rather V-shaped mark from submedian fold to just above inner margin, sometimes with a bar beyond it; a curved medial band from costa to below vein 2, dilated on outer side at middle; an oblique postmedial band from costa to below vein 5, its outer edge forming a hook below, and a conical patch from vein 3 to just above inner margin; a quadrate terminal patch at apex, a triangular patch at middle of termen, and a spot at tornus. Hind wing crimson, the costal area creamy white; an oblique black discoidal bar; an oblique postmedial band from costa to below vein 5, conjoined at costa to an apical patch and an oblique elliptical patch from vein 3 to termen at vein 1; a rather triangular spot at middle of termen; cilia blackish at apex, then yellowish to vein 2; the underside with antemedial and medial black bars from costa, conjoined on the costa, and the latter confluent with the discoidal bar.

Hab. Algeria, Gerryville, Guelt-es-Stel, 2 ♂. *Exp.* 32–38 millim.

Larva. On grass and barley.

Page 477. Genus **ATOLMIS**, insert:—

	Type.
Gnophria, Steph. Ill. Brit. Ent. Haust. ii. p. 98 (1829)	*rubricollis*.

2080. Atolmis rubricollis, insert:—

ab. *flavicollis*, Neuberg. Soc. Ent. xvii. p. 155 (1902).
Tegulæ yellow.

Genus MANNINA.

Type.

Mannina, Dyar, Pr. U.S. Nat. Mus. li. p. 7 (1916) ..... *hagnoleuca*.

Proboscis fully developed; palpi porrect, extending to just beyond the frons and slightly fringed with hair below; frons smooth; eyes large, round; antennæ of male serrate and fasciculate; tibiæ with the spurs moderate. Fore wing with the apex somewhat produced, the termen evenly curved; vein 3 from long before angle of cell; 4, 5 from angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with vein 3 from near angle of cell; 4, 5 shortly stalked; 6, 7 stalked; 8 from middle of cell.

In key differs from *Phryganopteryx* in the hind wing having veins 6, 7 stalked.

2080 *a*. Mannina hagnoleuca.

Mannina hagnoleuca, Dyar, Pr. U.S. Nat. Mus. li. p. 8 (1916).

♂. Head orange-yellow, the antennæ black except basal joint; thorax white; pectus and legs orange-yellow, the fore and mid tibiæ and the tarsi suffused with brown; abdomen grey-white, the extremity and ventral surface orange-yellow. Fore wing silvery white with a faint reddish brown tinge, the terminal area irrorated with a few black scales; the costal edge blackish towards base. Hind wing silvery white. Underside of fore wing dark reddish

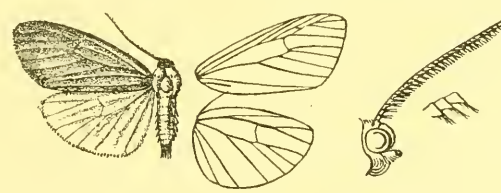

Fig. 101.—*Mannina hagnoleuca*, ♂. ½.

brown, the costa whitish except towards base and apex; hind wing with brownish discoidal striga.

♀. Fore wing pure silvery white with a small antemedial black spot on vein 1 and a postmedial series of small black spots on the veins, excurved below costa, then oblique.

Hab. Mexico, Guerrero, Hidalgo (*Mann & Skewes*), 1 ♂, 7 ♀. *Exp.* 42–48 millim.

2081. Baroa punctivaga, insert (syn.):—

Agrisius plumbeonigra, Swinh. A. M. N. H. (8) xviii. p. 485 (1916).

Assam, Khásis, type † ♀ in Coll. Swinhoe.

2083 *a*. Baroa siamica. (Plate LXVIII. fig. 14.)

Baroa siamica, Hmpsn. A. M. N. H. (8) viii. p. 411 (1911).

♂. Head and thorax pale yellow, the vertex of head, tegulæ, shoulders, patagia, and metathorax with black spots, the mesothorax

with paired black spots; antennæ blackish except at base; palpi with black spots on 1st and 2nd joints, the 3rd joint black; pectus and legs grey-brown, the coxæ yellow; abdomen grey-brown, the dorsum black except towards base. Fore wing grey-brown, the veins, cell, submedian fold, and inner margin with slight grey streaks, vein 1 with a more prominent streak; a small black spot defined by yellowish at base. Hind wing blackish brown, the base and costa somewhat paler.

Hab. Selangor, Pahang (*Holman-Hunt*), 1 ♀; Siam, Murk-Lek (*Frühstorfer*), 1 ♀ type; Philippines, Manila (*Ledyard*), 1 ♀, Mt. Makiling (*Baker*), 1 ♀. *Exp.* 36 millim.

Genus **AXIOPÆNIELLA.**

Type.

Axiopæniella, Strand, Ann. Soc. Ent. Belg. liii. p. 357 (1909) ... *laymerisa*.

Proboscis fully developed; palpi upturned, the 2nd joint reaching about to middle of frons and moderately scaled, the 3rd moderate; frons smooth; eyes large, round; antennæ of male minutely serrate and with long fasciculate cilia, of female almost simple; tibiæ moderately fringed with hair, the outer spurs short; retinaculum, in both sexes, a tuft of hair from median nervure. Fore wing long and narrow, the apex rounded, the termen obliquely curved; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form a long areole; 11 from cell. Hind wing with veins 3 and 5 from close to angle of cell; 6, 7 from upper angle; 8 anastomosing with the cell to middle.

In key differs from *Mazæras* in both wings having vein 3 from close to angle of cell, 5 from just above angle.

2083 *b*. Axiopæniella laymerisa.

Lithosia laymerisa, Grand. Rev. Zool. 1867, p. 274; Roths. Nov. Zool. xviii. pl. 6. f. 33; Kirby, Cat. Lep. Het. p. 347.

Deiopeia occultans, Voll. Pollen & Van Dam, Rech. Faun. Madag. v. Ins. p. 13, pl. 2. f. 5 (1869).

Head whitish with black bars on frons, between antennæ and on vertex; palpi with some black at base of 2nd joint and the 3rd

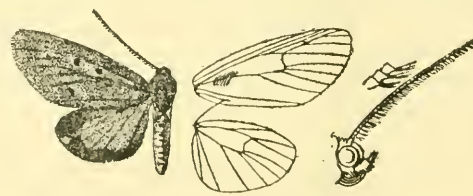

Fig. 102.—*Axiopæniella laymerisa*, ♂. ½.

joint black; antennæ black; tegulæ whitish with black spots, some yellow at neck; thorax red-brown; the tibiæ and tarsi black ringed with white; abdomen orange with dorsal black bars and sublateral and ventral black spots. Fore wing red-brown; a black

spot at base with some whitish beyond it; subbasal black spots below costa and cell; an oblique antemedial black striga from costa, obliquely-placed spots in and below cell and a spot on inner margin; a discoidal spot; a postmedial spot on costa, spots above and below vein 6 much nearer termen and spots below vein 2 and on inner margin. Hind wing crimson; a black discoidal spot; a terminal black band expanding on apical area, extending on costa to near middle, narrowing to a point at tornus, its inner edge incurved below vein 2; the underside with the costal edge black to near base.

Hab. MADAGASCAR, Morondava, 1 ♂. *Exp.* 40 millim.

*2083 *c.* Axiopæniella lasti.

Axiopœniella lasti, Roths. Nov. Zool. xvii. p. 182 (1910), & xviii. pl. 6. f. 32.

Head and thorax dark brown with a slight cupreous tinge; mid and hind tibiæ with the tufts of hair from base of upperside reddish, the tarsi slightly ringed with white; abdomen crimson, the basal segment brown, the extremity black, paired dorsal, lateral, and ventral series of black spots. Fore wing dark brown with a cupreous tinge; subbasal black spots below costa and cell; a curved antemedial black mark from costa, spot in cell rather further from base, and spots in submedian fold and on inner margin; a discoidal spot; a postmedial spot on costa, spots much nearer the termen above and below vein 6, and spots above and below vein 1. Hind wing crimson, the base brown; the costal and terminal areas black, broad at apex, narrowing to a point at tornus, the inner edge of the terminal band slightly waved; a black discoidal spot.

Hab. MADAGASCAR (*Last*) in Coll. Rothschild. *Exp.* 40 millim.

Page 480. Genus **UTETHEISA**, insert :—

	Type.
Deiopeia, Curt. Brit. Ent. iv. pl. 169 (1827)	*pulchella.*
Euchelia, Boisd. Eur. Lep. Ind. Meth. p. 59 (1828) non descr...	*pulchella.*

2084. Utetheisa elata.

Bombyx elata, Fabr. Ent. Syst. Suppl. p. 440 (1798) is the correct reference.

2084 *a.* Utetheisa pectinata. (Plate LXVIII. fig. 17.)

Utetheisa pectinata, Hmpsn. A. M. N. H. (7) xix. p. 240 (1907).

♂. Differs from *U. pulchella* only in the male having the antennæ bipectinate with very short branches and the hind wing having the fold and tuft on inner area.

Hab. N. AUSTRALIA, Port Essington, 1 ♂ type. *Exp.* 36 millim.

subsp. *ruberrima*, Roths. Nov. Zool. xvii. p. 182 (1909), & xviii. pl. 6. f. 23

Fore wing with the crimson markings much more strongly developed; hind wing with the terminal band very broad from costa to submedian fold, enclosing a white spot below vein 4, small black spots at angles of cell.

Hab. Loyalty Is., Lifu, type † ♂ in Coll. Rothschild.

2840 *b*. **Utethesia fatua.** (Plate LXVIII. fig. 15.)

Deilemera fatua, Hein. Ent. Zeit. Guben, xix. p. 213 (1906).
Utetheisa devittata, Strand, Ann. Soc. Ent. Belg. liii. p. 356 (1909).
Utetheisa mediomaculata, Strand, Ann. Soc. Ent. Belg. liii. p. 356 (1909).

♀ Head and thorax black-brown; 1st joint of palpi and sides of frons with white points; back of head with pair of white points; tegulæ with pink spots at middle and sides; patagia with pink spots, the mesothorax with pair of spots; pectus white with lateral black spots, the legs black with white streaks on femora; abdomen white, fuscous at extremity and with sublateral series of black spots. Fore wing black-brown; subbasal, antemedial, medial, postmedial, and subterminal crimson spots just below costa; an oblique white band from subcostal nervure across end of cell to vein 2, where it narrows to a point; subterminal crimson spots below veins 7 and 4. Hind wing white with a broad black-brown terminal band, its inner edge somewhat excurved at middle and incurved below vein 2.

Hab. Zanzibar; "Germ. E. Africa," Magila, 1 ♀. *Exp.* 46 millim.

2086. **Utetheisa lactea**, insert :—

var. *nigrosignata*, B. Fletcher, Trans. Linn. Soc., Zool. xiii. p. 268 (1910).

A form with black spots developed but hardly any red spots.

Farquhar Is., Cerf 1.

var. *rubrosignata*, B. Fletcher, Trans. Linn. Soc., Zool. xiii. p. 268 (1910).

A form with the red spots strongly developed but hardly any black spots.

Seychelles, Cosmoledo; Assumption; Gloriosa.

subsp. *aldabrensis*, B. Fletcher, Trans. Linn. Soc., Zool. xiii. p. 268 (1910).

A form with both black and red spots more or less strongly developed.

Seychelles, Aldabra; Assumption.

2086 *a*. **Utetheisa pulchelloides.** (Plate LXVIII. fig. 18.)

Utetheisa pulchelloides, Hmpsn. A. M. N. H. (7) xix. p. 239 (1907).
Utetheisa salamonis, Roths. Nov. Zool. xvii. p. 181 (1910).
Utetheisa stigmata, Roths. Nov. Zool. xvii. p. 182 (1910), & xviii. pl. 6. f. 27.
Utetheisa marshallorum, Roths. Nov. Zool. xvii. p. 182 (1910).

Differs from *U. pulchella* in the antennæ of male being serrate

instead of ciliated and in the hind wing having the fold and tuft on inner area.

It varies much in the same way as *U. pulchella*, but never seems to lose the black spots of fore wing, which usually has the ground-colour rather white; in specimens from the New Hebrides and Solomons the black terminal band on hind wing is largely developed, and it appears to be confined to Oceanic and other islands and to N. Australia.

The form *salamonis* from the New Hebrides and Solomon Is. has the black and red markings of fore wing much stronger, the terminal black area of hind wing very broad with a more or less developed white spot between veins 4, 3.

The form *stigmata* from New Caledonia and the Loyalty Is. has the terminal black band of hind wing still wider and without white spot on it and with a black discoidal patch.

The form *marshallorum* from the Marshall Is. is large with the black markings of fore wing reduced and the red markings strongly developed.

Hab. Seychelles, Praslin (*Fletcher*), 2 ♂, 1 ♀, Aldabra (*Fryer*), 1 ♀, Bird I. (*Fryer*), 1 ♀; Cargados Carejos (*Fletcher*), 1 ♂; Coetivy (*Fletcher*), 1 ♂, 1 ♀; Amirantes (*Fletcher*), Poivres, 1 ♂, 1 ♀, D'Anos, 1 ♂, St. Joseph, Eagle, 1 ♂, Desroches; Chagos Is., Peros Banhos (*Fletcher*), 1 ♂ type, Salomon Atoll, Diego Garcia; Ceylon, Kandy (*Green*), 3 ♂, 2 ♀, Peradenyia, Hambantota, Trincomali (*Fletcher*), 1 ♂, 1 ♀; Cocos-Keeling I. (*Darwin, Wood-Jones*), 3 ♂; Christmas I. (*Andrewes*), 1 ♂, 2 ♀; Singapore (*Ridley*), 1 ♂, 1 ♀; Formosa (*Seebohm, Dickson, Hobson, Wileman*), 1 ♂, 5 ♀; Loo-choo Is. (*Pryer*), 1 ♂; New Guinea (*Mathew*), 1 ♂, 1 ♀, Arfak Mts. (*Pratt*), 2 ♂, Port Moresby (*Turner*), 1 ♂, 1 ♀; N. Australia, Baudin I. (*J. J. Walker*), 3 ♂, 4 ♂, Pt. Darwin (*J. J. Walker*), 3 ♂, 2 ♀, Montebello Is. (*Montague*), 1 ♂; Queensland, Cooktown (*de la Garde*), 2 ♂; Solomon Is., Alu (*Woodford, Mathew*), 2 ♂; Gilbert Is. (*Woodford*), 2 ♂; Marshall Is. (*Mathew*), 1 ♂, 2 ♀; Ellice Is. (*Woodford, Mathew*), 4 ♂, 1 ♀; Marquesas Is., Henderson I., 3 ♂, 1 ♀. *Exp.* 34–44 millim.

The larva feeds on *Tournefortia argentea*.

2088. **Utetheisa pulchella**, insert:—

ab. *pallida*, Spüler, Schmett. Eur. ii. p. 143 (1906); Seitz, Gr.-Schm. pal. ii. p. 73, pl. 13 *k*.

Fore wing with the markings pale.

ab. *melampyga*, Spüler, Schmett. Eur. ii. p. 143 (1906).

Abdomen nearly all black.

ab. *fasciata*, Spüler, Eur. Schmett. ii. p. 143 (1906).

Fore wing with the black spots conjoined to form lines.

ab. *semisignata*, Spüler, Schmett. Eur. ii. p. 143 (1906); Seitz, Gr.-Schm. pal. ii. p. 73, pl. 13 *k*.

Fore wing with the black spots confined to the terminal area.

subsp. *completa*, Weym. Deutsch. Ent. Zeit. 1908, p. 731.
form *tenuella*, Seitz, Gr.-Schm. pal. ii. p. 73, pl. 13 *k* (1910).
Fore wing with the red and black spots small and numerous.
Angola.

ab. *bicolor*, Oberth. Ét. Lép. Comp. vi. pp. 182, 335, pl. lxxxii. ff. 764–5 (1911).
Algeria, Biskra.

ab. *arcuata*, Oberth. Ét. Lép. Comp. vi. p. 335, pl. lxxxii. f. 766 (1911).
Tunis.

2088 *a*. Utetheisa callima.

Utetheisa kallima, Swinh. A. M. N. H. (7) xix. p. 202 (1907); Roths. Nov. Zool. xviii. pl. 6. f. 30.

Head and thorax white mixed with orange; palpi at tips and antennæ black; frons, back of head, tegulæ, shoulders, tips of patagia, pro-, meso- and metathorax with black spots; pectus white with black spots at sides and on fore coxæ; legs tinged with fuscous, the tarsi fuscous ringed with white; abdomen clothed with white scales. Fore wing crimson with whitish bands with black spots on them and a whitish streak on inner margin; some white and orange at base; subbasal black spots below costa and cell and a streak above base of inner margin; the antemedial maculate band excurved below cell; the medial band excurved in cell, the white expanding into a patch and incurved below submedian fold; a maculate band from costa to lower angle of cell; the postmedial band arising below costa excurved to vein 4, then incurved, the white confluent from below costa to vein 4 with the subterminal maculate band which is bent inwards to costa; two spots on a white patch at apex and a terminal series of small lunules defined by black; cilia whitish at base, fuscous at tips. Hind wing white; the veins black; a sinuous black discoidal bar; a broad terminal band with sinuous inner edge expanding towards costa; the underside with black medial and postmedial spots on costa, a white patch on costa on the terminal band, and slight spots below veins 3 and 2.

Hab. Angola, 1 ♀ type. *Exp.* 44 millim.

subsp. *dilutior*, Roths. Nov. Zool. xvii. p. 182 (1910), & xviii. pl. 6. f. 29.
Fore wing with the crimson markings less strongly developed. Hind wing with the terminal band indented between veins 4, 3.

Hab. Congo, Katanga, Kambove (*Neave*), 2 ♂, Lake Kiwu, Kissenyi (*Grauer*), type † ♀ in Coll. Rothschild.

*2089 *a*. Utetheisa sumatrana.

Utetheisa sumatrana, Roths. Nov. Zool. xvii. p. 182 (1910), & xviii. pl. 6. f. 31.

♂. Head and thorax white, the vertex of head, tegulæ, and patagia tinged with scarlet; palpi blackish at tips; antennæ black; fore and mid femora and tibiæ above and the tarsi blackish; abdomen white. Fore wing scarlet; the basal half with white streaks defined by black on median nervure and vein 1; the inner

margin white defined by black above; small white spots defined by black at middle of cell and on discocellulars, the former with some black beyond its lower part; a small white spot defined by black below base of vein 3 and two minute spots in submedian interspace; postmedial black points above vein 6 and below vein 5; the costal edge fuscous towards apex; cilia white. Hind wing semihyaline white. Underside of fore wing white, the costal area and terminal area to vein 2 scarlet, a black spot in middle of cell and black discoidal bar; hind wing with the apex scarlet.

Hab. N.E. Sumatra, Deli, type † ♂ in Coll. Rothschild. *Exp.* 38 millim.

2090. Utetheisa ornatrix, insert :—

ab. *daphœna*, Dyar, Insec. Inscit. Menstr. ii. p. 129 (1914).

Fore wing with more or less developed diffused scarlet stripes along the veins or almost wholly suffused with scarlet.

ab. *butleri*, Dyar, Insec. Inscit. Menstr. ii. p. 130 (1914)=*stretchi*.

Larva. Dyar, Insec. Inscit. Menstr. ii. p. 115.

Head red; body black, greyish at the incisures; a yellow dorsal line, interrupted anteriorly and incised posteriorly; each somite with three subdorsal angulate or quadrate yellow spots, the medial spot broken by tubercle ii.; a yellow stigmatal stripe interrupted at the middle of somites with angular patches and a small spot above tubercle iv.; a series of small spots along tubercle vi.; ventral surface pale yellow; feet black; tubercles large, blue-black, with single hairs except vi. which is double, iv. close behind the spiracle; hairs long and coarse, black on tubercles i. and ii., white on tubercles iii. to vi. except the longest hairs towards extremity which are black at base; cervical shield black, bisected, each half with four hairs. Food-plant, *Leguminosæ*.

2091. Utetheisa bella, insert :—

ab. *nova*, Smith, Ann. Rep. New Jersey Mus. 1909, p. 438 (1910).

All the pink replaced by yellow.

*2093 *a*. Secusio cinerea.

Secusio cinerea, Pag. Jahrb. Nass. Ver. lvi. p. 17 (1903).
Bithra aganice, Fawcett, P. Z. S. 1917, p. 235, pl. i. f. 11.

♀. Head and thorax grey tinged with brown; palpi with the extremities of 2nd and 3rd joints fuscous; antennæ blackish; tegulæ with black spot, the patagia with two spots and the metathorax with one spot; legs fuscous; abdomen yellow, with dorsal and lateral series of black spots, the ventral surface grey. Fore wing grey tinged with brown; a small black spot at base, subbasal spots below costa and cell, antemedial obliquely-placed spots below median nervure and above vein 1; a spot in middle of cell, a spot

beyond upper angle of cell above vein 6, and two beyond lower angle above veins 4, 3. Hind wing pale yellow.

Hab. N.E. Africa (*Erlanger*), type † ♀ in Coll. Pagenstecher; Br. E. Africa, Kedai, type † ♀ *aganice* in Coll. Fawcett. *Exp.* 28–32 millim.

*2093 *b*. Secusio oberthuri.

Epimedia oberthueri, Roths. Nov. Zool. xvii. p. 78, pl. 14. f. 6 (1910).

♂. Head and thorax creamy white; palpi black towards tips; antennæ brown; vertex of head with black point; tegulæ with black spots; patagia with black spots at shoulders, middle, and tips; pro- and metathorax with black spots; legs tinged with brown; abdomen yellow. Fore wing creamy white with curved subbasal series of four small black spots. Hind wing white; the underside with the costa tinged with yellow.

Hab. Angola, N. Bailundu (*Pemberton*), type † ♂ in Coll. Rothschild. *Exp.* 30 millim.

2094 *a*. Secusio somaliensis.

Secusio somaliensis, Hmpsn. P. Z. S. 1916, p. 102, pl. i. f. 2.

♀. Head and thorax pale reddish brown tinged with grey, the vertex of head with minute black streak, the tegulæ, shoulders, and patagia near base and tips with black spots ringed with whitish; the metathorax with minute black spot; palpi brown at sides; pectus and legs whitish tinged with brown, the former with black spot at sides; abdomen brownish ochreous with dorsal and sublateral series of black spots, the ventral surface whitish tinged with brown. Fore wing pale reddish brown; a subbasal black point on costa ringed with white; obliquely-placed antemedial black spots on and below costa and in cell and spots nearer the base below median nervure and above vein 1, all ringed with white; two diffused waved white medial lines, rather oblique to below the cell, then incurved; obliquely-placed postmedial black spots ringed with white below veins 8 and 7, then a series of diffused white spots with minute black points on the spots below veins 5 and 4; a subterminal series of diffused white spots in the interspaces. Hind wing pale grey-brown. Underside of both wings uniformly pale grey-brown.

Hab. Somaliland, Mandera (*Feather*), 1 ♀ type. *Exp.* 36 millim.

2098 *a*. Secusio atrizonata.

Secusio atrizonata, Hmpsn. P. Z. S. 1910, p. 395, pl. xxxvi. f. 34.

♂. Head and thorax orange with black streaks on vertex and sides of head and dorsum of thorax and patagia, and spots on frons and tegulæ; palpi black except at base; the antennæ black with the shaft white above except towards tips; legs striped fuscous and

whitish; abdomen orange with lateral and sublateral series of black points, the ventral surface whitish. Fore wing brown suffused with grey, the veins and discal and submedian folds on basal half streaked with whitish; a small whitish spot in end of cell; cilia greyish at tips. Hind wing orange with black terminal band, rather broad from apex to vein 2, then narrow to vein 1 where it terminates; cilia orange, whitish at tips, tinged with fuscous at base towards tornus. Underside of fore wing orange, the terminal area black from costa beyond middle to inner margin near tornus, its inner edge slightly irregular.

Hab. N.E. Rhodesia, Tanganyika Plateau, Lofu Valley (*Neave*), 1 ♂ type. *Exp.* 44 millim.

2101. **Haploa lecontei**, insert :—

ab. *harrisii*, Dyar, Cat. Lep. N. Amer. p. 84 (1902).

Fore wing with the oblique band broken.

ab. *smithii*, Dyar, Cat. Lep. N. Amer. p. 84 (1902).

Fore wing with the markings interrupted and diffused.

ab. 3. is *vestalis*, Pack. no. 2105.

2102. **Haploa contigua**, insert :—

ab. *lumbonigra*, Dyar, Cat. Lep. N. Am. p. 84 (1902).

Fore wing with the black on termen almost obsolete.

2104. **Haploa confusa**, insert :—

ab. *lymani*, Dyar, Cat. Lep. N. Am. p. 84 (1902).

Fore wing with the markings interrupted and reduced.

2107. **Rhodogastria bubo**, insert (syn.) :—

Rhodogastria niveivitrea, Bartel, Iris, xvi. p. 208 (1903).

Zanzibar. Cotype † ♂ in Mus. Berlin.

2107 *a*. **Rhodogastria atrivena**. (Plate LXVIII. fig. 19.)

Rhodogastria atrivena, Hmpsn. A. M. N. H. (7) xix. p. 240 (1907).

♀. Pure white; palpi tinged with yellow, black above; frons black at sides and with two black spots above; vertex of head with black point; antennæ brownish; tegulæ, shoulders, patagia, and prothorax with pairs of small black spots, those on tegulæ larger; legs yellow, the femoro-tibial joints with black spots; abdomen with lateral black points except on basal segments and minute sublateral black streaks on two medial segments. Fore wing with fine black-brown streaks on the veins and minute discoidal point. Hind wing with minute discoidal point.

Hab. Uganda, Entebbe (*Minchin*), 1 ♀ type. *Exp.* 60 millim.

*2109 *a*. Rhodogastria magnifica.

Rhodogastria magnifica, Roths. Nov. Zool. xvii. p. 183 (1910), & xviii. pl. 5. f. 13.

♂. Head and thorax white; palpi yellow, white in front, the extremities of the 2nd and 3rd joints black; frons black below; antennæ with the basal joint yellow; tegulæ and patagia dorsally and at sides, the pro-, meso-, and metathorax with paired black spots; some black and crimson below shoulders; legs striped yellow and white, the fore tibiæ, and tarsi except terminal joint, brown in front; abdomen with the 1st three segments white, the terminal segments crimson, the ventral surface white, lateral and sublateral series of small black spots. Fore wing white; a black spot at base of costa and two in cell, a subbasal black bar from costa; an incurved reddish brown band from costa across end of cell to inner margin at tornus, the area beyond it semihyaline; the terminal part of costa and the termen to below vein 4 reddish brown. Hind wing white, the end of cell and area beyond it between veins 7 and 2 semihyaline to near termen.

Hab. Br. E. Africa, type † ♂ in Coll. Rothschild. *Exp.* 74 millim.

2110. del. *Rhodogastria arthus-bertrand, Chelonia saucia, & Amerila piepersi.*

This species will stand as **Rhodogastria caudipennis**, Wlk.

2110 *a*. Rhodogastria omissa.

Rhodogastria omissa, Roths. Nov. Zool. xvii. p. 184 (1910), & xviii. pl. 5. ff. 11, 12.

♂. Head and thorax white tinged with red-brown; palpi crimson with black spots at the extremities of the joints; antennæ black, crimson towards base and with black spot on basal joint; frons and vertex of head with black spots; tegulæ and patagia dorsally and at sides, the pro-, meso-, and metathorax with paired black spots; pectus white with some crimson and black below shoulders and wings; legs crimson, the fore and mid legs fuscous in front, the fore coxæ with black spots; abdomen white, the base slightly tinged with crimson and with some pale rufous hair, the two terminal segments crimson, lateral and sublateral series of small black spots. Fore wing pale reddish brown, a discoidal bar and the apical area fuscous brown; two black points at base of cell; the end of cell, area below it, and the disk beyond it semihyaline, the outer edge of the hyaline area waved and below vein 5 extending to towards termen. Hind wing semihyaline white faintly tinged with brown, the inner area and termen more thickly scaled.

♀. Abdomen entirely crimson above.

Hab. Sikkim (*Pilcher*), 1 ♀, (*F. Moller*), type † ♂, ♀ in Coll. Rothschild; Assam, Khásis. *Exp.*, ♂ 66, ♀ 74 millim.

*2111 *a*. Rhodogastria bipartita.

Rhodogastria bipartita, Roths. Nov. Zool. xvii. p. 186 (1910), & xviii. pl. 6. f. 16.

♂. Head and thorax white; palpi yellow with black spots at extremities of the joints; antennæ black, the basal joint yellow with black spot above; frons and vertex of head with black points; tegulæ and patagia dorsally and at sides, the pro-, meso-, and metathorax with paired black points; legs yellow, the tibiæ white in front; abdomen yellow, the ventral surface white, lateral and sublateral series of black points. Fore wing white; two black points at base of cell; the end of cell and disk beyond it somewhat semihyaline. Hind wing yellow slightly tinged with brown; the underside yellow, the termen white from vein 2 to tornus.

Hab. Br. E. Africa, Tauta, type† ♂ in Coll. Rothschild. *Exp.* 50 millim.

*2111 *b*. Rhodogastria pallida. (Plate LXVIII. fig. 20.)

Rhodogastria fumida, pallida, Roths. Nov. Zool. xvii. p. 185 (1910).

♂. Head and thorax white slightly tinged with ochreous; palpi tinged with crimson and with black spots at the extremities of the joints; antennæ brown, the basal joint crimson with black spot; frons and vertex of head with black spots; tegulæ and patagia dorsally and at sides with pairs of black spots, the prothorax with two pairs of black spots, the meso- and metathorax each with one pair; legs crimson and white, the pectus and fore coxæ with black spots; abdomen yellow, the ventral surface white, lateral and sublateral series of black spots. Fore wing white tinged with ochreous brown to end of cell, the apical area reddish brown, its inner edge obliquely waved from costa beyond middle to termen at vein 3; a black point at base of costa and two in cell; a brown discoidal bar and shade from lower angle of cell to inner margin. Hind wing white, the end of cell and area beyond it semihyaline; the termen at apex brownish.

Hab. Timor, Dilli (*Doherty*), type† ♂ in Coll. Rothschild. *Exp.* 54 millim.

2112. Rhodogastria brunnea, insert (syn.) :—

Rhodogastria subvitrea, Bartel, Iris, xvi. p. 209 (1903).

2112 *a*. Rhodogastria fumida. (Plate LXVIII. fig. 21.)

Rhodogastria fumida, Swinh. A. M. N. H. (7) vii. p. 465 (1901).

♂. Greyish brown; palpi at base, basal joint of antennæ, back of head, and underside of tegulæ crimson; frons, vertex of head, tegulæ, shoulders, patagia, pro-, meso-, and metathorax with paired black spots; pectus, legs, and abdomen crimson, the last with lateral and sublateral series of black spots. Fore wing with small

hyaline spot in end of cell and patch beyond the cell between veins 7 and 3 expanding below vein 5. Hind wing with the cell pale.

Hab. Gilolo, 1 ♂, type. *Exp.* 52 millim.

2113 *a*. Rhodogastria pannosa. (Plate LXVIII. fig. 22.)

Rhodogastria pannosa, Grünb. Sitz. Ber. Ges. Natf. Freunde, Berl. 1908, p. 62. pl. iii. f. 4.
Rhodogastria sarconota, Hmpsn. A. M. N. H. (8) viii. p. 411 (1911).

♂. Head and thorax very pale red-brown; palpi crimson with black points on the joints; antennæ dark brown, the basal joint black on inner side, crimson on outer; frons above, vertex of head, tips of tegulæ, patagia at base, and paired spots on pro-, meso-, and metathorax black; shoulders with black spots; pectus and legs whitish, crimson streaks below the wings, femora above, the tibiæ and base of tarsi streaked with crimson, the fore tibiæ and the tarsi red-brown; abdomen crimson with the five basal segments pale flesh-colour on dorsum, the ventral surface brown. Fore wing pale red-brown, the cell and area just below and beyond it semihyaline; a small black spot at base. Hind wing pale red-brown, the inner area paler.

Hab. S. Nigeria, Aro (*C. M. Gray*), 1 ♂ type *sarconota*; Uganda. *Exp.* 50 millim.

*2113 *b*. Rhodogastria piepersi.

Amerila piepersii, Snell. Tijd. v. Ent. xxii. p. 102, pl. 8. f. 4 (1879); Roths. Nov. Zool. xviii. pl. 6. ff. 15, 25.

♂. Head brownish white with black points above frons and on vertex; palpi crimson with a black band on each joint; antennæ brown, crimson towards base and with black point on basal joint; thorax pale brown, the tegulæ and patagia with black spots; pectus whitish, the legs striped crimson and brown; abdomen crimson, the 3rd, 4th, and 5th segments pale buff, the ventral surface whitish, lateral and sublateral series of blackish spots. Fore wing semihyaline whitish, the veins and margins pale brown; a brown discoidal bar conjoined to the brown costal area; the outer edge of the whitish area waved and excurved to near termen below vein 5 leaving the apical area broadly brown. Hind wing semihyaline whitish, the veins and margins narrowly brown, the brown on termen expanding somewhat towards apex; the inner area tinged with brown.

♀. Abdomen wholly crimson above.

Hab. Celebes, Palos Bay, Tawaya, Buton, in Coll. Rothschild; Dutch N. Guinea. *Exp.*, ♂ 56, ♀ 54 millim.

2113 *c*. Rhodogastria timiolis. (Plate LXVIII. fig. 23.)

Rhodogastria timiolis, Turner, Pr. R. Soc. Queensl. xxvii. p. 20 (1915).
Rhodogastria timiolis, tenebrosa, Roths. Nov. Zool. xxiii. p. 333 (1916).

♂. Head and thorax white tinged with pale brown; palpi with

the base of 2nd and 3rd joints, basal joint of antennæ, and tegulæ below crimson; antennæ black; the joints of palpi, frons, vertex of head, tegulæ, shoulders, patagia, pro-, meso-, and metathorax with paired black spots; crimson streaks below base of wings and on legs; abdomen dorsally crimson with the base of first four segments yellowish; lateral and sublateral series of black spots, the ventral surface white. Fore wing pale brown with two small black spots at base; a hyaline spot in upper angle of cell; discoidal bar blackish; a hyaline patch beyond the cell between veins 7 and 3 expanding nearly to termen below vein 5. Hind wing with whitish mark in and beyond end of cell interrupted by the blackish discoidal spot; the inner area yellowish.

♀. Thorax whiter; abdomen with the dorsum wholly crimson; wings with the ground-colour much whiter.

Hab. "Germ. N. Guinea," Vulcan I. (*Meek*), type † ♂ *tenebrosa* in Coll. Rothschild; Queensland, Kuranda, Townsville (*Dodd*), 1 ♂, 1 ♀, type † ♂, ♀ in Coll. Turner; N. Australia, Melville I. *Exp.*, ♂ 62, ♀ 64 millim.

*2113 *d.* Rhodogastria communis. (Plate LXVIII. fig. 24.)

Creatonotus communis, Wlk. xxxi. 283 (1864).

♂. Head white with black points above frons and on vertex; palpi crimson with black bands on 2nd and 3rd joints; antennæ black, crimson towards base; thorax whitish tinged with brown, the tegulæ, patagia, pro-, meso-, and metathorax with paired black points; pectus suffused with crimson; legs crimson, the femora streaked with brownish white, the fore and mid tibiæ with fuscous; abdomen with the basal half ochreous, the terminal half crimson, the ventral surface brownish white. Fore wing whitish suffused with pale brown, the apical area tinged with fuscous; two black points at base of cell and one on costa; a fuscous brown discoidal bar; the extremity of cell and a large patch beyond it between veins 7 and 3 semihyaline white, its outer edge sinuous and below vein 5 extending to towards termen. Hind wing whitish tinged with pale brown, the cell and interspaces beyond it to near termen semihyaline white.

Hab. Buru (*Wallace*), type † ♂ in Mus. Oxon. *Exp.* 68 millim.

*2113 *e.* Rhodogastria rufitarsus.

Rhodogastria rufitarsus, Roths. Nov. Zool. xxiv. p. 485 (1919).

♂. Head and thorax brownish white, the back of head and edges of tegulæ narrowly crimson, the frons above and vertex of head with black spots, the tegulæ dorsally and at shoulders, the patagia, prothorax above base of patagia and dorsally, the meso- and metathorax with paired black spots, the antennæ black, the shaft towards base and basal joint crimson, the palpi crimson with

black spot on each joint; abdomen with the basal segment brownish white, the 2nd to 5th segments pale red-brown, the two terminal segments crimson; legs crimson, the fore tibiæ with black streak; vertical surface of abdomen brownish white, the extremity crimson at sides, lateral series of black spots. Fore wing brownish white, the costa and veins pale reddish brown; a large fuscous brown discoidal lunule; the apical area pale fuscous brown to vein 3, its inner edge rather irregularly waved. Hind wing white, the costa, apex, veins, and inner area faintly tinged with brown.

♀. Abdomen crimson with a black and whitish band at base; fore wing with the discoidal lunule rather diffused, especially at lower extremity, the inner area more strongly tinged with red-brown; hind wing with the area below the cell and vein 2 tinged with red-brown, especially towards inner margin, a brown discoidal bar, the apex dark brown, narrowing to a point at vein 4.

Hab. Bismarck Arch., Rook I. (*Meek*), type † ♂, ♀ in Coll. Rothschild. *Exp.* ♂ 60, ♀ 64 millim.

2113. **Rhodogastria roseibarba**, insert:—

Lithosia arthus-bertrand, Guér. Voy. 'Coquille,' Lep. Atlas. pl. 19. f. 5 (1830).

which has precedence;

and *Chelonia saucia*. Boisd. Voy. 'Astrolabe,' Lep. p. 214 (1832).

*2113 *f.* **Rhodogastria curta.** (Plate LXVIII. fig. 25.)

Rhodogastria curta, Roths. Nov. Zool. xxiv. p. 485 (1917).

♂. Head and thorax whitish tinged with red-brown, the neck with crimson ring, the frons above and vertex of head with black spots, the tegulæ dorsally and at shoulders, the patagia near base and at shoulders, and the prothorax above base of patagia with paired black spots, the dorsum of thorax without spots, the metathorax with pair of faint brown spots, the antennæ black with the shaft towards base and basal joint above crimson, the palpi crimson with black spots on each joint; abdomen chalky white, the basal and two terminal segments pale crimson; pectus and legs crimson, the fore coxæ with black spots, the fore and mid tibiæ and the 1st joint of fore tarsi striped with black above; ventral surface of abdomen faintly tinged with crimson, strongly on terminal segments, lateral series of black spots. Fore wing with the apex not produced and rounded; the basal, costal, and inner areas and the veins pale red-brown, the interspaces of discal area whitish; a strong black-brown discoidal bar, somewhat dilated above and below; the apical area to vein 3 deeper red-brown, its inner edge rather irregularly waved. Hind wing white, the hair on inner margin ochreous, the apex pale reddish brown, narrowing to a point at vein 3.

Hab. Bismarck Arch., Rook I. (*Meek*), type † ♂ in Coll. Rothschild. *Exp.* 70 millim.

2114 *a*. **Rhodogastria serica**, trans. from page 505.

The male with fringe of dark brown hair on upperside of hind wing. In Coll. Rothschild.

*2115 *a*. Rhodogastria roseomarginata.

Rhodogastria roseomarginata, Roths. Nov. Zool. xvii. p. 183 (1910), & xviii. pl. 6. f. 35.

♂. Head and thorax pale red-brown; palpi crimson with black spots at extremities of the joints; antennæ black, the basal joint crimson with black spot above; frons and vertex of head with black points; tegulæ and patagia dorsally and at sides, the pro-, meso-, and metathorax with paired black points; pectus whitish tinged with rufous and with crimson and black spots below the shoulders; legs crimson, the tibiæ and tarsi fuscous in front, the fore coxæ with black spots; abdomen crimson, the base and ventral surface pale rufous, lateral and sublateral series of small black spots. Fore wing pale red-brown; two black points in base of cell; the cell and area just below it and the disk beyond it semihyaline, the outer edge of the semihyaline area sinuous, darker above vein 5, and below it extending more towards termen. Hind wing semihyaline slightly tinged with rufous, the termen pale rufous, pink between veins 6 and 2; the underside with the costal area pale rufous, the termen pink.

Hab. S. Nigeria, Ogruga, type† ♂ in Coll. Rothschild, Kiongo. *Exp.* 52 millim.

*2115 *b*. Rhodogastria rothi.

Rhodogastria rothi, Roths. Nov. Zool. xvii. p. 183 (1910), & xviii. pl. 6. f. 34.

♂. Head and thorax red-brown; palpi crimson with black spots at the extremities of the joints; frons blackish at sides, antennæ black, the basal joint crimson with black point above; frons and vertex of head with black points, the tegulæ dorsally and at sides, the patagia and meso- and metathorax with paired black points, the tegulæ crimson below; pectus and legs crimson, the latter fuscous in front, the fore coxæ with black spots; abdomen crimson with lateral and sublateral series of small black spots. Fore wing red-brown with a fuscous tinge; two black points at base of cell; the lower part of cell, the area just below it, and the disk beyond it semihyaline, the semihyaline area extending below vein 5 to towards termen. Hind wing semihyaline white slightly tinged with red-brown, the inner area tinged with crimson; the apex and termen to vein 4 and below vein 2 brown. Underside of fore wing with some pink at base; hind wing white tinged with pink, the costal area pink towards base then brown, and the apical part of termen brown.

Hab. S. Nigeria, Warri R. (*Roth*), type† ♂ in Coll. Rothschild. *Exp.* 50 millim.

2115 *c*. **Rhodogastria metasarca.** (Plate LXIX. fig. 8.)

Rhodogastria metasarca, Hmpsn. A. M. N. H. (8) viii. p. 412 (1911).

♂. Head and thorax pale red-brown; palpi pink, the 1st joint with black mark at side, the 2nd and 3rd joints black except at base; antennæ black except basal joint; frons and vertex of head with black points, the tegulæ dorsally and at sides, patagia, pro- and metathorax with paired black points; pectus and legs pink, the fore coxæ with black spots, the extremities of femora, the tibiæ and tarsi streaked with black; abdomen pink with lateral and sublateral series of small black spots. Fore wing pale red-brown; a black point at base of costa and two in cell; a semihyaline patch beyond and below end of cell between veins 7 and 2, edged with darker brown on discocellulars and outer edge, and the veins on it red-brown. Hind wing pale flesh-pink with a semihyaline patch in, beyond, and below end of cell, the veins crossing it pinkish; the apex tinged with brown; the underside with the costal area slightly tinged with brown.

Hab. S. Nigeria, Sapele (*Sampson*), 1 ♂ type. *Exp.* 54 millim.

subsp. 1. Fore wing with the semihyaline patch beyond and below end of cell very indistinct and ill-defined, much narrower beyond the cell; hind wing without semihyaline patch on disk.

Hab. Gold Coast, Accra, 1 ♂. *Exp.* 50 millim.

2115 *d*. **Rhodogastria carneola.** (Plate LXIX. fig. 9.)

Rhodogastria carneola, Hmpsn. Nov. Zool. xxiii. p. 239 (1916).

Head and thorax ochreous flesh-colour, the basal joint of antennæ and neck crimson, the basal joint of antennæ, vertex of head, tegulæ, and patagia with black spots, the pro-, meso-, and metathorax with paired black spots; antennæ pale crimson ringed with brownish; frons with black spots at middle and sides; palpi crimson with black bands at extremities of 2nd and 3rd joints; legs crimson with black spots at sides of fore coxæ; abdomen crimson, the ventral surface pale flesh-pink, lateral and sublateral series of black spots. Fore wing ochreous flesh-colour; a diffused fuscous brown medial line; a large semihyaline patch beyond the cell between veins 7 and 2, its outer edge excurved between veins 5 and 2. Hind wing pale flesh-pink, semihyaline except the veins and margins. Underside of fore wing with the cell and area below it also semihyaline defining a flesh-pink discoidal bar.

Hab. "Germ. E. Africa," Moschi, 1 ♀; Br. C. Africa, Mt. Mlanji (*Neave*), 1 ♂ type. *Exp.* 54 millim.

2115 *e*. **Rhodogastria castanea.** (Plate LXIX. fig. 10.)

Rhodogastria castanea, Hmpsn. A. M. N. H. (8) viii. p. 412 (1911).

♂. Head and thorax red-brown; palpi pink with black marks

at side of 1st joint, the 2nd and 3rd joints black except at base; frons with black points at sides and above; vertex of head with black spot; tegulæ dorsally and at sides, patagia, meso- and metathorax with paired black spots; pectus and legs pink, the fore coxæ with black spots, the legs streaked with fuscous; abdomen pink with lateral and sublateral series of small black spots. Fore wing red-brown, the cell and the disk beyond and below it semihyaline, a black point at base of costa and two in cell. Hind wing semihyaline, the veins, costal and terminal areas pale reddish brown, the inner margin pale pinkish; cilia pale.

Hab. S. Nigeria, Old Calabar (*Crompton*), 1 ♂ type. *Exp.* 54 millim.

2116. del. *Noctua vidua*, Cram. & *Noctua puella*, Fabr. The species will stand as **Rhodogastria mauritia**.

2116*a*. Rhodogastria vidua.

Noctua vidua, Stoll, Cram. Pap. Exot. iii. p. 127, pl. 264. f. C (1779).
Bombyx puella, Fabr. Ent. Syst. 3. 1. p. 474 (1793).

Head and thorax pale red-brown; palpi crimson, the 1st joint with black spot, the 2nd and 3rd joints black at extremities; antennæ blackish, the basal joint crimson with black spot above; frons above and vertex of head with black spots; tegulæ and patagia dorsally and at sides, the pro-, meso-, and metathorax with paired black spots; femora striped crimson and brownish, the tibiæ and tarsi striped crimson and blackish, the fore coxæ with black spots; abdomen pale reddish brown, crimson towards extremity above, lateral and sublateral series of black spots. Fore wing narrow, pale reddish brown, the cell and area below and beyond it semihyaline, the outer edge of the hyaline area sinuous and extending below vein 5 to near termen; a black point at base of costa and two in base of cell. Hind wing pale brownish ochreous, the cell and area below and beyond it somewhat semihyaline.

Hab. Sierra Leone (*Austen*), 5 ♂, 1 ♀; Gold Coast, Aburi (*Johnston*), 2 ♂; S. Nigeria, Lagos (*Strahan, Boag*), 4 ♂. *Exp.* 48 millim.

2116*b*. Rhodogastria thermochroa. (Plate LXIX. fig. 11.)

Rhodogastria thermochroa, Hmpsn. Nov. Zool. xxiii. p. 239 (1916).

♂. Head and thorax pale rufous; palpi with the basal joint pale crimson with two black spots, the 2nd and 3rd black, pale crimson at base; frons pale crimson with black spot above; antennæ black, the basal joint pale crimson, black in front; vertex of head with black spot; tegulæ with black spots at middle and sides; shoulders with two black spots; tegulæ at base, pro-, meso-, and metathorax with paired black spots; pectus and legs pale

crimson, the fore legs above and the mid tibiæ and tarsi streaked with fuscous; abdomen yellow with lateral and sublateral series of small black spots. Fore wing pale rufous; three minute black spots at base; an oblique postmedial semihyaline band from below costa to vein 3. Hind wing pale red-brown, the cell and interspaces just beyond it semihyaline.

Hab. Br. E. Africa, S. Kakumega Forest, Yala R. (*Neave*), 1 ♂ type. *Exp.* 48 millim.

*2116 *c*. Rhodogastria phædra. (Plate LXIX. fig. 12.)

Amerila phædra, Weym. Stett. Ent. Zeit. liii. p. 106 (1892).

♂. Head and thorax ochreous brown; palpi crimson fringed with yellow hair at base, the basal joint with black spot, the extremities of 2nd and 3rd joints black; antennæ black, the basal joint crimson with black spot; frons above and vertex of head with black spots; neck with crimson ring; tegulæ and patagia dorsally and at sides, the pro-, meso-, and metathorax with paired black spots; pectus ochreous with some crimson below the wings; femora streaked ochreous and crimson, the tibiæ and tarsi crimson and fuscous; abdomen crimson, the ventral surface reddish ochreous, lateral and sublateral series of black spots. Fore wing dull reddish brown, the base paler with two small black spots at base of cell, the area just beyond and below end of cell slightly semihyaline. Hind wing uniform ochreous.

Hab. "Germ. E. Africa," Saadani, Dar-es-Salaam in Coll. Rothschild. *Exp.* 56 millim.

2118. Rhodogastria vitripennis, insert :—

Chelonia madagascariensis, Boisd. Delegorgue Voy. Afr. Austr. ii. p. 598 (1847),

which has precedence, and del. *Pelochyta vidua*, Saalm.

2118 *a*. Rhodogastria nigropunctata. (Plate LXIX. fig. 13.)

Rhodogastria nigropunctata, Beth.-Baker, Nov. Zool. xv. p. 191 (1908).

Head and thorax creamy white; palpi black with scarlet bands at base of 2nd and 3rd joints; antennæ black; frons above and vertex of head with single black spots; tegulæ at middle and sides, patagia, pro-, meso-, and metathorax with paired black spots; pectus and femora above scarlet; legs black; abdomen scarlet above and below, with sublateral and lateral series of small black spots. Fore wing with the basal area brownish white, the costa and a basal spot in cell black, the outer edge of basal area inwardly oblique, the rest of wing fuscous brown, blacker towards middle; a slight pale mark in upper extremity of cell; four elongate semihyaline spots beyond the cell between veins 7 and 3 with a curved pale mark below them

ending in a whitish mark on termen. Hind wing with the base brownish white, the rest of wing fuscous brown.

Hab. Br. N. Guinea, Mt. Kebea (*Pratt*), 1 ♂, 4 ♀, Ekeikei (*Pratt*), 1 ♂, 1 ♀, Avola (*Pratt*), 1 ♂, Mafalu (*Pratt*), 1 ♂, Sogeri 1 ♂. *Exp.* 60–64 millim. Type † in Coll. Bethune-Baker.

2119. **Rhodogastria croceri**, insert:—

Rhodogastria norobritannica, Roths. Nov. Zool. xvii. p. 184 (1910).

A form from New Britain; thorax with the black spots larger; fore wing more dusky with the hyaline spot in the cell almost obsolete, the area beyond the cell semihyaline not hyaline; hind wing semihyaline edged with brownish.

New Britain, type † ♂, ♀ in Coll. Rothschild.

Rhodogastria salomonis, Roths. Nov. Zool. xvii. p. 184 (1910), & xviii. pl. 6. f. 19.

A form from the Solomon Is.; antennæ with the basal fourth crimson, the black spots on head and thorax large, the patagia edged with white on outer side; fore wing darker.

Solomon Is., Guadalcanar I., Florida I., Guizo I., Tulagi I., type † ♂, ♀ in Coll. Rothschild.

subsp. *kajana*, Bryk, Arch. Naturg. lxxix. A. 6. p. 126 (1913).
Rhodogastria papuana, Roths. Nov. Zool. xxiii. p. 333 (1916).

"Germ. N. Guinea," Vulcan I. (*Meek*), type † ♂ *papuana* in Coll. Rothschild.

Rhodogastria simillima, Roths. Nov. Zool. xxiv. p. 485 (1917).

Fore legs with the tibiæ at extremity and the whole tarsus above crimson, the antennæ with the base of shaft crimson as in the typical form, the fore wing with the hyaline spot in the cell almost obsolete, the hind wing with the inner area brownish white.

Bismarck Arch., Rook I. (*Meek*), type † ♂ in Coll. Rothschild.

*2119 *a*. **Rhodogastria erythropus**. (Plate LXIX. fig. 14.)

Rhodogastria erythropus, Roths. Nov. Zool. xxiv. p. 485 (1917).

♀. Head and thorax dark grey-brown, the back of head and a spot behind the tegulæ crimson, the frons above and vertex of head with black spots, the tegulæ dorsally and at shoulders, the patagia near base and at shoulders, the prothorax above base of patagia, and the pro-, meso-, and metathorax dorsally with paired black spots, the antennæ black, the shaft towards base and basal joint crimson, the palpi crimson with black spots on each joint; abdomen deep crimson; pectus and legs deep crimson, the fore and mid tibiæ striped with black above; ventral surface of abdomen grey-white, the basal segment tinged with crimson at sides, the two terminal segments with black bands, lateral maculate black stripes with short whitish streaks before the stigmata and crimson streaks

on terminal segments. Fore wing brownish grey, the interspaces beyond the cell between veins 7 and 3 grey-white, the veins dark; a strong fuscous black discoidal bar; the costal area beyond the cell and apical area to vein 3 fuscous black, its inner edge irregularly waved. Hind wing white, the area below the cell and vein 2 tinged with brown, the veins dark; a crimson tinge at base of inner margin; the costa and apex fuscous brown, narrowing to a point at vein 3.

♂. Hind wing with the inner area tinged with flesh-pink.

Hab. Bismarck Arch., Rook I. (*Meek*), type † ♀ in Coll. Rothschild. *Exp.* 76 millim.

2120. **Rhodogastria astreas**, del. *Noctua eugenia*, *Chelonia madagascariensis*, *Amerila rhodopa*, *Creatonotus communis*, *Amerila vitrea*, *Rhodogastria fraterna*, *Amerila bauri*, & *Amerila phædra*.

Larva. Moore, Lep. Ceyl. ii. p. 76, pl. 108. f. 1; Piepers, Tijd. v. Ent. xlviii. p. 194.

Head yellow-green, large, shining, with a black patch at sides; body dull green with series of black points with white hairs rising from them. Food-plant, *Beaumontia*.

Pupa. Dark brown, large, shining, not forming a cocoon.

subsp. *hainana*, Roths. Nov. Zool. xvii. p. 185 (1910).

Burma, Tounghoo (*Watson*), 1 ♀; Hainan, Chang-mai, type † ♀ in Coll. Rothschild; Cochin China.

subsp. *curtisi*, Roths. Nov. Zool. xvii. p. 185 (1910).

Smaller and darker.

Penang (*Curtis*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 50, ♀ 56 millim.

Rhodogastria communis, minor, Roths. Nov. Zool. xxiii. p. 333 (1916).

"German N. Guinea," Vulcan I. (*Meek*); Bismarck Arch., Admiralty Is., Manus (*Meek*), type † ♂ in Coll. Rothschild.

2120*a*. **Rhodogastria bauri.** (Plate LXIX. fig. 15.)

Amerila bauri, Möschl. Verh. zool.-bot. Ges. Wien, xxxiii. p. 289, pl. 16. f. 2 (1884).

Head and thorax pale brownish ochreous; palpi crimson above, the extremities of 2nd and 3rd joints black, antennæ black, crimson towards base and with black spot on basal joint; frons and vertex of head with black spots; tegulæ with black spots at sides, the patagia dorsally and at sides with black spots, the pro- and metathorax with paired black spots; legs streaked with crimson, the fore coxæ and pectus with black spots; abdomen pale crimson, the ventral surface brownish ochreous, lateral and sublateral series of

black spots. Fore wing ochreous tinged with red-brown, the apical area red-brown; a small black spot at base of costa and two in cell; a dark streak on basal half of vein 2 with a shade from its extremity to inner margin; a hyaline patch beyond the cell between veins 8 and 2, defined by black-brown above, on inner side to vein 5 and on outer to vein 3, veins 6 and 5 dark on the patch and a shade from the inner edge of the patch to costa, the outer edge of the patch sinuous and produced towards termen below vein 5. Hind wing semihyaline whitish tinged with red-brown, the costa and termen more thickly scaled.

Hab. Namaqualand (*Cochrane*), 2 ♂; Transvaal, Ngoye Hills (*Grant*), 1 ♂; Zululand, Lr. Tugela R. (*Reynolds*), 1 ♂; Natal, Durban (*Leigh*), 1 ♂; Cape Colony, Grahamstown, 2 ♂, 1 ♀. *Exp.* 60–66 millim.

Larva. Fawcett, Tr. Zool. Soc. xvii. p. 180, pl. vii. f. 27.

Pale grass-green; head with black spot on crimson ground at apex of each eye; body with the dorsal area irrorated with minute yellow spots; 4th and 11th somites with subbasal crimson spots; 7th and 9th somites with crimson and black V-shaped mark pointing posteriorly; abdominal somites with lateral yellow line; spiracles crimson. Food-plant, "Waterboom."

Pupa brown covered with white efflorescence in a slight cocoon on the surface of the ground.

2120 *b*. **Rhodogastria vitrea.** (Plate LXIX. fig. 16.)

Amerila vitrea, Plotz, Stett. Ent. Zeit. xli. p. 84 (1880).

Head and thorax whitish tinged with pale red-brown; palpi crimson with black spots at extremities of the joints; antennæ brown, crimson towards base and with black point on basal joint; frons and vertex of head with black points; tegulæ and patagia dorsally and at outer edge, pro- and metathorax with paired black points; legs crimson, the tibiæ brown above; abdomen crimson, ventrally white tinged with rufous and with lateral and sublateral series of small black spots. Fore wing pale reddish brown; a black point at base of costa and two in cell; the cell from before middle, the disk beyond it, and the area below it semihyaline, the discocellulars and the outer edge of the hyaline area, which is excised at discal fold, darker. Hind wing semihyaline white, the termen slightly tinged with brown.

Hab. S. Leone, Kambah (*Simpson*), 1 ♂; S. Nigeria, Bende (*Cockburn*), 1 ♀; N. Nigeria, Minna (*Macfie*), 1 ♀; Congo (*Chapman*), 1 ♀; Angola, Ambriz (*Monteiro*), 1 ♂; Transvaal, Lydenburg, 1 ♂; Natal, Durban (*Gooch*, *Marshall*), 1 ♂, 2 ♀. *Exp.* 50–54 millim.

*2120 *c*. **Rhodogastria affinis.** (Plate LXIX. fig. 17.)

Rhodogastria affinis, Roths. Nov. Zool. xvii. p. 184 (1910).

♂. Head and thorax red-brown; palpi tinged with crimson, the extremities of the joints black; antennæ blackish, the basal joint

crimson and black; frons and vertex of head with black points; tegulæ dorsally and at sides, the patagia at base, extremities and shoulders with black spots, the pro- and metathorax each with two pairs of black spots; legs crimson above; abdomen crimson with lateral and sublateral series of black spots Fore wing red-brown, the apical area darker; a black point at base of costa and two in cell; the end of cell and the area below and beyond it semihyaline, the outer edge of the semihyaline area sinuous and below vein 4 extending to near termen. Hind wing semihyaline whitish slightly tinged with red-brown, the termen red-brown from apex to vein 2; the underside with the costal area tinged with red-brown.

Hab. Natal (*Spiller*), type† ♂ in Coll. Rothschild. *Exp.* 56 millim.

*2120 *d*. Rhodogastria saalmulleri.

Pelochyta vidua, Saalm. Lep. Madag. i. p. 150, pl. 5. f. 52 (1884), nec Cram.

Rhodogastria saalmulleri, Roths. A. M. N. H. (8) viii. p. 235 (1911).

♂. Head and thorax white tinged with reddish brown; palpi crimson, whitish in front, the basal joint with black spot, the 2nd and 3rd joints black at extremities; antennæ brownish crimson, the basal joint with black spot; frons above and vertex of head with black points; tegulæ and patagia dorsally and at sides, the pro-, meso-, and metathorax with paired black spots; legs striped crimson and whitish; abdomen crimson, the ventral surface whitish, lateral and sublateral series of black points. Fore wing whitish faintly tinged with reddish brown, the cell and area below and beyond it semihyaline, the outer edge of the hyaline area sinuous and edged with fuscous; two black points at base of cell; a brownish white discoidal bar. Hind wing semihyaline white, the inner and terminal areas more thickly scaled and tinged with brownish; a slight fuscous discoidal lunule; the underside with the costal area tinged with brownish.

Hab. Madagascar, Morondava, type† ♂ in Coll. Rothschild. *Exp.* 50 millim.

2120 *e*. Rhodogastria rhodopa. (Plate LXIX. fig. 18.)

Amerila rhodopa, Wlk. xxxi. 305 (1864).

♂. Head and thorax brownish white; palpi crimson above, the extremities of the joints blackish; antennæ brown; frons and vertex of head with black points; tegulæ dorsally and at sides and the meso- and metathorax with paired black points; legs tinged with crimson; abdomen crimson, the ventral surface brownish white. Fore wing white tinged with brown especially on apical area; a black point at base of costa and two in cell; the cell from before middle, the disk beyond it, and the area below it semihyaline, the outer edge of the hyaline area waved and extending to termen below vein 3. Hind wing semihyaline white, the veins, termen, and inner area tinged with brown.

Hab. India, 1 ♂; Madras, Shevaroy Hills, 1 ♂, Coimbatore, (*Walhouse*), 1 ♂ type. *Exp.* 46–52 millim.

2120*f*. Rhodogastria eugenia. (Plate LXIX. fig. 19.)

Noctua eugenia, Fabr. Ent. Syst. (3) ii. p. 19 (1794).
Rhodogastria fraterna, Moore, Trans. Ent. Soc. 1884, p. 356.

Head and thorax white, the tips of tegulæ and base of patagia slightly tinged with brown; palpi crimson above, with black spots at extremities of joints; antennæ brown, the basal joint crimson with black point above; frons and vertex of head with black points; tegulæ and patagia dorsally and at outer edge, pro- and metathorax with paired black points; legs brownish above, crimson below; abdomen dorsally crimson, ventrally white and with lateral and sublateral series of small black spots. Fore wing white with a very slight brownish tinge; a black point at base of costa and two in cell; the cell from before middle, the disk beyond it and the area below it semihyaline, the outer edge of the hyaline area waved and extending to near termen below vein 3. Hind wing white with a faint brownish tinge, semihyaline except the termen and inner area.

Hab. Punjab (*Horne*), 1 ♂; Bombay (*Leith*), 1 ♂, 1 ♀ type *fraterna*. *Exp.* 52–56 millim.

*2120*g*. Rhodogastria lactea. (Plate LXIX. fig. 20.)

Rhodogastria lactea, Roths. Nov. Zool. xvii. p. 185 (1910).

♀. Head and thorax white faintly tinged with ochreous; palpi crimson, white in front and with black spots at extremities of 2nd and 3rd joints; antennæ brown, the basal joint crimson with black spot; vertex of head with black point; tegulæ and patagia dorsally and at sides, the pro-, meso-, and metathorax with paired black points; pectus at sides and fore coxæ with black spots; legs striped crimson and white, the fore tibiæ brown in front; abdomen crimson, the basal joint and ventral surface white, lateral and sublateral series of black points. Fore wing white; a black point at base of costa and two in cell; the end of cell and area below and beyond it semihyaline, the semihyaline area extending below vein 5 to towards termen. Hind wing white, the end of cell and area beyond it slightly semihyaline.

Hab. Burma, Minbu, type † ♀ in Coll. Rothschild. *Exp.* 46 millim.

2120*h*. Rhodogastria aldabrensis.

Rhodogastria aldabrensis, Fryer, Trans. Linn. Soc., Zool. xv. p. 6, pl. 1. f. 5 (1912).

Head and thorax chalky white tinged with rufous; antennæ rufous; the basal joint of antennæ, vertex of head, tegulæ near dorsum and outer edge, shoulders and patagia with small black spots; palpi tinged with crimson at sides and with small black spots near the extremities of the joints; fore legs tinged with crimson;

abdomen chalky white, dorsally slightly tinged with crimson. Fore wing white tinged with rufous and semihyaline except the marginal areas; a large apical fuscous brown patch extending to vein 4, its inner edge sinuous. Hind wing semihyaline white.

Hab. Seychelles, Aldabra, Assumption I. (*Dupont*), 2 ♂, 1 ♀ type. *Exp.* 40 millim.

2120 *i*. Rhodogastria fuscivena. (Plate LXIX. fig. 21.)

Rhodogastria fuscivena, Hmpsn. Nov. Zool. xxiii. p. 240 (1916).

♂. Head and thorax ochreous whitish; palpi crimson with black spot on 1st joint and bands on 2nd and 3rd joints; frons with black spot above; antennæ black, crimson towards base, the 1st joint black in front; vertex of head with black spot; tegulæ with black spots at middle and sides; shoulders with two black spots; patagia with two black spots near base and one near tips; pro-, meso-, and metathorax with paired black spots; pectus and legs crimson, the fore legs ochreous white in front; abdomen ochreous whitish, the terminal half dorsally tinged with crimson, lateral and sublateral series of small black spots. Fore wing brownish white, the veins streaked with fuscous, the discocellulars whitish; three minute black spots at base. Hind wing brownish white.

Hab. Uganda, Toro, Mpanga Forest (*Neave*), 1 ♂ type. *Exp.* 56 millim.

2121 *a*. Rhodogastria alberti.

Rhodogastria alberti, Roths. Nov. Zool. xvii. p. 186 (1910), & xviii. pl. 6. f. 21.

Head and thorax white; palpi crimson, white in front and with black spots at the extremities of the joints; antennæ brown, crimson towards base; frons and vertex of head with black points; tegulæ and patagia dorsally and at sides with paired black points; prothorax with crimson patch behind the tegulæ and two pairs of black points, the metathorax with pair of black points; pectus yellow with some crimson below the shoulders and wings; legs striped crimson and white, the fore coxæ with black spots; abdomen crimson, pale yellowish ventrally and with lateral and sublateral series of black spots. Fore wing white; a black point at base of costa and two in cell; the end of cell, area just below it, and the disk beyond it semihyaline, the semihyaline area with sinuous outer edge extending below vein 5 to near termen. Hind wing white, the end of cell and area just beyond it slightly semihyaline.

Hab. Queensland, Kuranda (*R. E. Turner*), 1 ♂, Cedar Bay, Cooktown (*Meek*), type † ♂ in Coll. Rothschild, Cairns. *Exp.* 70 millim.

2123 *a*. Rhodogastria cuehni. (Plate LXX. fig. 8.)

Rhodogastria kuehni, Roths. Nov. Zool. xvii. p. 186 (1910).

Head and thorax white; palpi tinged with yellow and with black spots at the extremities of the joints; antennæ yellow; tegulæ at sides, the patagia dorsally and at sides, and the pro-, meso-, and metathorax with paired black points, the prothorax edged with yellow; legs yellow and white; abdomen white. Fore wing white; black points at base of costa and cell; the end of cell and area below and beyond it semihyaline. Hind wing white, the end of cell and area beyond it semihyaline.

Hab. Tenimber, Larat, 1 ♀; Dammer I. (*Kühn*), type † ♂ in Coll. Rothschild. *Exp.* 62 millim.

2127 *a*. Ilemodes astriga. (Plate LXX. fig. 9.)

Ilemodes astriga, Hmpsn. Nov. Zool. xxiii. p. 240 (1916).

♀. Head and thorax silvery white with paired small black spots on pro- and metathorax; antennæ brownish except towards base; frons, palpi, pectus, legs, and abdomen yellow, the fore tibiæ and tarsi tinged with brown. Fore wing silvery white with a minute black discoidal point. Hind wing pale yellow. Underside of fore wing pale brown with a white fascia from below costa towards base to costa towards apex, the inner area yellow; hind wing with small black discoidal spot.

♂. Fore wing with the costal edge fulvous yellow, blackish towards base; the underside fulvous yellow with the terminal area brownish grey.

Hab. Transvaal, Lydenburg, 1 ♂; Natal, Maritzburg, 1 ♀ type. *Exp.* 44 millim.

Genus GERARCTIA.

Type.

Gerarctia, Hmpsn. A. M. N. H. (7) xv. p. 448 (1905) ..... *poliotis*.

Proboscis fully developed; palpi short, upturned, the 2nd joint moderately fringed with scales in front; frons with rounded prominence; antennæ of female with bristles and cilia; ocelli present; tibiæ with the inner spurs rather long; build slender. Fore wing long and narrow; the cell long with a wedge-shaped areole in upper extremity; vein 2 from towards end of cell; 3 and 5 from near angle; 6 from below angle; 7 from angle; 8, 9 stalked from the areole; 10 from the areole; 11 from cell. Hind wing with vein 2 from towards end of cell; 3, 4 stalked; 5 from above angle; 6, 7 from angle; 8 coincident with cell to middle.

In key differs from *Anaphela* in the areole being wedge-shaped with vein 7 from the cell; the genus is possibly allied to *Nycteola*.

2127 *b*. Gerarctia poliotis.

Gerarctia poliotis, Hmpsn. A. M. N. H. (7) xv. p. 449 (1905).

♀. Head, thorax, and abdomen grey tinged with fuscous. Fore wing grey suffused and irrorated with fuscous; the veins with

slight dark streaks; the antemedial line very oblique, only defined by the area beyond it being suffused with fuscous, a slight dark streak beyond it in submedian fold; a slight dark discoidal lunule; postmedial line whitish, defined on inner side by fuscous streaks on

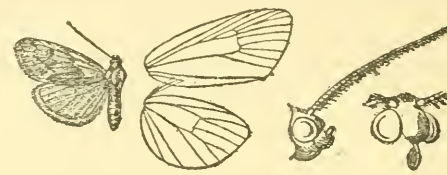

Fig. 103.—*Gerarctia poliotis*, ♀. ½.

the veins below costa and at middle, bent outwards below costa, then oblique and somewhat angled inwards in submedian fold; a slight oblique dark streak from apex; a terminal series of black points. Hind wing grey with rather darker terminal line, the cilia paler; the underside with dark discoidal lunule.

ab. 1. Fore wing with medial black patch in submedian interspace.

Hab. CANARIES, Tenerife (*W. White*), 2 ♀ type, Guimar (*Walsingham*), 2 ♀. *Exp.* 30 millim.

LIST OF UNRECOGNISED SPECIES.

Acantharctia aurivillii, Bartel, Iris, xvi. p. 194 (1903), ? near *A. nivea* ..... "Germ. E. Africa."

„ *guineæ*, Strand, Arch. Naturg. lxxviii. 9, p. 103 (1912) ..... Spanish Guinea.

„ *wintgensi*, Strand, Iris, xxii. p. 113 (1909). ? near *A. atriramosa* ..... "Germ. E. Africa."

Amsacta impia, Strand, Ent. Rundschau, xxvi. p. 109 (1909). ? near *Mænas arborifera*..... "Germ. E. Africa."

„ *radiosa*, Pag. Jahrb. Nass. Ver. lvi. p. 13 (1903). ? near *Acantharctia flavicosta* ..... Abyssinia.

Arctia strandi, Niepelt, Intern. Ent. Zeit. v. p. 274 (1911). ? near *A. alpina*..... E. Turkestan.

„ *strigosa*, Wlk. iii. 615 (1855). Type lost ... Hab. ign.

Creatonotus flavidus, Bartel, Iris, xvi. p. 196 (1903). ? near *Spilosoma sinefascia* ..... "Germ. E. Africa."

„ *nigrovittatus*, Matsumara, Thousand Ins. Japan, Suppl. iii. p. 75, pl. 35. f. 30 (1911). ? *Spilosoma*. Formosa.

Hypocrita atra, Bang-Haas, Iris, xxvi. p. 109 (1912). ? near *Hyalocoa diaphana* ..... W. Siberia.

Ischnarctia brunnescens, Bartel, Iris, xvi. p. 207 (1903). ? near *Secusio* ..... "Germ. E. Africa."

Mænas jeskei, Grünberg, Stett. Ent. Zeit. lxxii. p. 380 (1911). "Germ. S.W. Africa."

Noctua pales, Drury, Exot. Ins. i. p. 47, pl. xxiii. f. 3 (1770). ? near *Automolis sanguinolenta* or *melese*. St. Cristopher.

Paramænas strigosus, Grünberg, Stett. Ent. Zeit. lxxii. p. 381 (1911) ..... "Germ. S.W. Africa."

Phalæna cinerea, Sepp, Ins. Surinam, i. p. 21, pl. 7 (1828). Surinam.

Rhodogastria nigrivenosa, Grünberg, Soc. Ent. xxiv. p. 146 (1910). ? near *R. fuscivena* ..... Uganda.

„ *sanguinota*, Strand, Deutsch. Ent. Zeit. 1911, p. 586 ..... "Germ. E. Africa."

„ *subleucoptera*, Strand, Deutsch. Ent. Zeit. 1911, p. 587 ..... "Germ. E. Africa."

Secusio sansibarensis, Strand, Ann. Soc. Ent. Belg. liii. p. 355 (1909). ? near *S. atrizonata* ..... Zanzibar.

Seirarctia translucens, Grünberg, Berl. Ent. Zeit. lii. p. 66 (1907). "Germ. E. Africa."

Spilosoma angolensis, Bartel, Iris, xvi. p. 186 (1903). ? near *Spilosoma flava* ..... Angola.

„ *bivittata*, Bartel, Iris, xvi. p. 181 (1903). ? near *Mænas ramosa* ..... "Germ. E. Africa."

„ *fuscovenata*, Bartel, Iris, xvi. p. 182 (1903). ? near *Amsacta flavizonata*..... "Germ. E. Africa."

„ *heterogenea*, Bartel, Iris, xvi. p. 192 (1903). ? *Estigmene* ..... Angola.

„ *immaculata*, Bartel, Iris, xvi. p. 190 (1903). ? near *Spilosoma flava* ..... Cameroons.

„ *meinhofi*, Bartel, Iris, xvi. p. 213 (1903). ? near *Spilosoma investigatorum*..... Zanzibar.

„ *nigripunctata*, Bartel, Iris, xvi. p. 174 (1903). ? = *Spilosoma punctulata* ... "Germ. E. Africa."

„ *occidentalis*, Bartel, Iris, xvi. p. 191 (1903). ? near *Spilosoma rhodesiana* ..... "Germ. S.W. Africa."

„ *semipura*, Bartel, Iris, xvi. p. 173 (1903). ? = *Spilosoma punctulata* ..... "Germ. E. Africa."

„ *sublutea*, Bartel, Iris, xvi. p. 183 (1903). ? = *Spilosoma investigatorum* ..... "Germ. E. Africa."

„ *unimaculata*, Bartel, Iris, xvi. p. 185 (1903). ? near *Spilosoma flava*..... "Germ. E. Africa."

Teracotona flavipennis, Bartel, Iris, xvi. p. 202 (1903). ? near *T. rhodophæa* ..... Angola.

„ *flavipennis*, ab. *rufipennis*, Strand, Ent. Rundschau, xxvi. p. 115 (1909) ..... "Germ. E. Africa."

Family PHALÆNOIDIDÆ.

Phalænoides, McCleay, 1805, type *glycinæ*, is older than *Agarista*, Leach 1815, type, *agricola*.

2. Eusemia vetula, insert:—

Eusemia hebe, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 3, pl. 4 *a* (1912).

An aberration with the tibiæ and 1st joint of fore tarsi streaked with yellowish.

Java, Preanger type † ♀ in Coll. Rothschild.

Eusemia mundina, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 3, pl. 4 *a* (1912).

= subsp. *fasciatrix*.

Perak. Type † ♂ in Coll. Rothschild.

Eusemia vetula, subsp. *palavanica*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 3 (1912).

A form of the subsp. *fasciatrix* with the postmedial band of hind wing narrow and not dilated above.

Palawan. Type † ♂ in Coll. Rothschild.

Larva. Piepers, Tijd. v. Ent. xlviii. p. 195, pl. 7. f. 6.

Grey-white; dorsal and subdorsal lines black; each somite with black warts on each side of these lines with long white hairs rising from them; head orange or shining brown; 1st and the two posterior somites orange with black points, the terminal somite with transverse white striæ; the lateral and ventral areas with the colour darker. Food-plants: *Dioscorea* and *Smilax leucophylla*.

3. Eusemia conspicua, insert (syn.):—

Eusemia solicita, Swinh. A. M. N. H. (7) x. p. 495 (1902).

4. Eusemia bisma.

Larva. Piepers, Tijd. v. Ent. xlviii. p. 196.

5. Eusemia latimargo, insert:—

Eusemia shevaroyensis, Strand, Lep. Cat. v. p. 4 (1912)

for subsp. 1.

6 *a*. Eusemia beatrix.

Episteme beatrix, Jordan, Seitz, Gr.-Schm. pal. iii. p. 6, pl. 1 *a* (1907); Mats. Thous. Ins. Jap. Suppl. ii. pl. xxiii. f. 6.

Eusemia maculatrix, abs. *antemedialis*, *cellularis*, and *angularis*, Strand, Lep. Cat. v. p. 5 (1912).

♂. Head and thorax black; palpi with white spots on 1st and 2nd joints; sides of frons and basal joint of antennæ with yellow

points; patagia with yellow patches; pectus orange; legs black, the fore tibiæ streaked with white at base, the mid and hind tibiæ with yellowish; abdomen orange with dorsal black bands, lateral spots and ventral spots on terminal segments, the claspers black below. Fore wing black with subbasal and antemedial blue marks below costa and cell; an antemedial yellow spot in cell; medial quadrate yellow patches in and below cell; three small postmedial yellow spots below costa and three white spots between veins 5 and 2, the middle one larger; four small wedge-shaped subapical white spots and a point above tornus. Hind wing orange; some black at base; a discoidal spot; a patch from lower angle of cell to just above inner margin connected by streaks on veins 2 and 1 with the terminal band, expanding into a quadrate patch between costa and vein 4, and with white subapical spot on it.

ab. 1. Abdomen with the dorsal bands forming a patch on medial segments.

♀. Abdomen with the extremity orange below.

Hab. W. China, Omeishan, 1 ♀, Moupin (*Kricheldorf*), 2 ♂. *Exp.* 66–80 millim. Type † ♂ in Coll. Rothschild.

6 *b*. Eusemia distincta.

Eusemia distincta, Butl. A. M. N. H. (4) xv. p. 140 (1875); id. Ill. Het. B. M. v. p. 17, pl. 82. f. 3; Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 5, pl. 1 *a*.

This is a distinct species.

Hab. Assam (*Badgley*), 1 ♀, Silhet, 1 ♀ type, Shillong (*Parish*), 3 ♂. *Exp.* 70–80 millim.

6 *c*. Eusemia macrosema. (Plate LXX. fig. 1.)

Eusemia distincta, subsp. *macrosema*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 5 (1912).

♂. Head and thorax black; frons with white points above at sides; patagia with pale yellow patches; palpi with white points on 1st and 2nd joints; coxæ with orange hair; fore and mid femora and tibiæ and the 1st joint of fore tarsi streaked with white; abdomen banded deep orange and black, the anal tuft black, the ventral surface orange with lateral and subventral series of black spots. Fore wing black; some silvery blue irroration at base and small subbasal spots below costa and above vein 1; a broad somewhat oblique creamy yellow medial band with slightly irregular edges from just below costa to vein 1; a minute white spot beyond the cell above vein 6 and rather larger spot below vein 4; a rather oblique series of four minute elongate white subterminal spots from above vein 7 to below 5, the two lower obsolescent, and a small spot in submedian fold. Hind wing deep orange, the base, costal and terminal areas black; a black spot on upper discocellular conjoined to the costal area; a large oblique irregularly elliptical black patch from and from beyond lower angle of cell to tornus conjoined

to the terminal area by black streaks on veins 2 and 1; the terminal area very broad at costa, its outer edge bent outwards at vein 4, then sinuous to tornus; a small subterminal white spot below vein 7 and a minute spot below vein 4. Underside of fore wing with small white spot below costa near base and subbasal spot in the cell, the postmedial and subterminal spots larger, hind wing with additional subterminal white spots above vein 7 and below 3.

♀. Abdomen with the extremity orange; fore wing with three small spots beyond upper angle of cell and the subterminal spots rather longer.

Hab. Burma, Maymyo (*Mackwood*), 1 ♂, Momeit (*Doherty*), type † ♀ in Coll. Rothschild. *Exp.*, ♂ 70, ♀ 78 millim.

7. Eusemia nipalensis, insert :—

ab. *clara*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 4 (1912),

= ab. 2.

subsp. *schana*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 4 (1912).

A form with orange-red hind wings.

Hab. Tenasserim (*Bingham*), 1 ♂ type.

subsp. *expansa*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 4 (1912).

Similar but fore wing with the lower postmedial spot longer and broader.

Hab. Tonkin, Chien Hoa (*Frühstorfer*), type † ♂ in Coll. Rothschild.

9. Eusemia adulatrix, insert :—

subsp. *spilosa*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 6 (1912).

A form with the medial spots of fore wing small and well separated.

Hab. Hainan, Cheng-mai, 1 ♂, co-type.

13. Chelonomorpha japona, insert :—

Chelonomorpha dubia, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 6 (Feb. 1912).

burmana, Strand, Lep. Cat. v. p. 9 (1912)
for subsp. 1.

Larva. Wileman, Phil. Journ. Sci. xii. p. 229, pl. i. f. 1 (1917).

Bluish white marked with many irregular black spots and dashes; somite 1 orange with a transverse series of small black spots; somite 11 dorsally orange with four black spots; anal shield black; a faint lateral orange stripe on somites 2 to 11, more prominent on somites 6 to 9; head, legs, and pro-legs black. Food-plant, *Smilax herbacea*.

15. Exsula dentatrix, insert :—

ab. *conjuncta*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 8, pl. 1 *e*.

*15 *a*. Exsula albomaculata. (Plate LXX. fig. 2.)

Exsula albomaculata, Miyake, Annot. Zool. Jap. vi. p. 79 (1907); Mats. Thousand Ins. Jap. Suppl. ii. pl. xxiii. f. 3.

♀. Head and thorax black; gulæ white; neck with orange ring; fore coxæ, the fringes of hair, and inner side of tibiæ orange; abdomen with the basal segment black, the other segments banded orange and black. Fore wing black; an antemedial round white spot in cell, a quadrate spot in middle of cell and another below vein 2 near its origin; rather elongate postmedial white spots above veins 6, 4, 3; subbasal metallic blue spots below costa and above vein 1 and a discoidal bar. Hind wing orange; the base black; a black discoidal band extending to costa, its inner edge expanded into a rounded lobe below, its outer produced as a streak in discal fold to the terminal band and to teeth above and below vein 2; a rather broad black terminal band, its inner edge slightly angled inwards at discal fold and vein 2; the underside with antemedial white mark below costa, the discal band expanding on costa to the black at base and on terminal area.

Hab. Formosa, Koannania in Coll. Wileman. *Exp.* 76 millim.

16. Exsula victrix, insert :—

ab. *punctigera*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 9 (1912).
Fore wing with small white spots beyond the cell above veins 6, 4, 3.

ab. *limma*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 9 (1912).
Fore wing with an additional point above vein 7.

burmaensis, Strand, Lep. Cat. v. p. 7 (1912)
for subsp. 1.

20. Immetalia bernsteini, insert :—

ab. *brevimacula*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 10 (1912).
Fore wing with the postmedial band extending from below costa, towards which it is obsolescent, to just below vein 3.
Gilolo (*Waterstradt*), type † ♂ in Coll. Rothschild.

subsp. *buruana*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 10 (1912).
Fore wing with the band rather broader and more evenly curved; hind wing with the band as in *xanthomelas*.
Hab. Buru, Mt. Mada (*Dumas*), type † ♀ in Coll. Rothschild.

subsp. *obiana*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 10 (1912).
Similar, but fore wing with the band orange-yellow.
Hab. Obi Major (*Waterstradt*), type † ♀ in Coll. Rothschild.

*22 *a*. Immetalia diversa.

Immetalia diversa, Roths. Nov. Zool. x. p. 486, pl. xii. ff. 24, 25 (1903).
Immetalia saturata, calida, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 11, pl. 2 *b* (1912).
Immetalia saturata, leucotænia, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 10 (1912).

♂. Head, thorax, and abdomen black shot with blue; palpi at base, a bar above frons, gulæ, and a slight ring round neck whitish;

abdomen with the medial segments more or less greyish on dorsum, the anal tuft orange. Fore wing black shot with blue; the basal area with silvery blue streaks below costa and on vein 1; a small spot in middle of cell; an oblique broad white medial band from below costa to above inner margin, narrowing towards costa; cilia whitish at apex. Hind wing black shot with brilliant blue; an oblique orange-red band from vein 6 to above tornus, narrowing above and with its edges irregular.

ab. 1. ♂ *leucotænia*. Both wings with the medial band white.

ab. 2. ♂ *calida*. Fore wing with the medial band orange.

♀. Fore wing with the medial band orange.

Dutch N. Guinea, Oetakwa R., Snow Mts. (*Meek*), type † ♂ *leucotænia* in Coll. Rothschild; Br. N. Guinea, Aroa R. (*Meek*), type † ♂, ♀, and type *calida* in Coll. Rothschild. *Exp.* 54–62 millim.

22. Immetalia meeci.

subsp. *ceiana*.

Immetalia meeki, keiana, Roths. Nov. Zool. x. p. 486 (1903).

♂. Fore wing with the orange band not extending above subcostal nervure except as a faint spot and broader between veins 5 and 2; hind wing with the band not extending above upper angle of cell.

Hab. Gt. Key I. (*H. Kühn*), type † ♂ in Coll. Rothschild.

23. Immetalia saturata, insert:—

subsp. *leucomelas*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 10 (1912).

= *dolleschalli*, the female with the bands of fore wing extending to just below submedian fold only.

Hab. Ceram, type † ♂, ♀ in Coll. Rothschild.

ab. *hemigrapha*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 11 (1912).

Fore wing with the band rather narrower and more oblique.

Dutch N. Guinea, Oetakwa R., Snow Mts. (*Meek*), type † ♀ in Coll. Rothschild.

*24*a*. Immetalia eichhorni.

Immetalia eichhorni, Roths. Nov. Zool. viii. p. 406 (1901), & x. pl. 12. f. 38; Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 11, pl. 2*a*.

♂. Black; frons with some blue; neck with white ring; tegulæ edged with blue; legs marked with blue; abdomen shot with blue, the anal tuft fulvous yellow. Fore wing with the base of subcostal and median nervures and vein 1 streaked with silvery blue, subbasal and antemedial patches below costa and a spot in cell; an obliquely-curved deep orange band with slightly waved edges from just below middle of costa to near tornus where its extremity is rounded; cilia white at apex. Hind wing with the cilia white at

tips. Underside of both wings with the cilia mostly white, no fold and fringe of hair on inner area.

Hab. Solomon Is., Isabel I., type † ♂ in Coll. Rothschild. *Exp.* 62 millim.

Genus **DEPALPATA**.

Type.

Depalpata, Roths. A. M. N. H. (9) iii. p. 488 (1919) ..... *mirabilis.*

Proboscis aborted and non-functional; palpi with the 2nd and 3rd joints minute, aborted, and curved downwards; frons smooth; eyes large, round; antennæ of male hardly dilated towards tips; thorax clothed with thick woolly pile; tibiæ smoothly scaled, the spurs minute, the hind tibiæ with the terminal spurs only; abdomen short and broad with some rough hair at base of dorsum. Fore wing rather narrow, the apex rounded, the termen evenly curved; vein 2 from long before angle of cell; 3 from close to angle; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked; 11 from cell. Hind wing with vein 2 from well before angle of cell; 3, 4 from angle; 5 obsolescent from middle of discocellulars; 6, 7 stalked; 8 anastomosing with the cell near base only; the underside in male with the whole inner area from near base clothed with rough androconia extending into the lower end of cell and to vein 3.

In key differs from *Parothria* in the proboscis and palpi being aborted and the frons without prominence.

* 25 *a*. **Depalpata mirabilis.**

Depalpata mirabilis, Roths. A. M. N. H. (9) iii. p. 488 (1919).

♂. Head and thorax black-brown; a golden yellow ring round neck and the tegulæ golden yellow at tips; abdomen metallic greenish blue with the hair at base black-brown and the anal tuft orange-yellow; pectus below the shoulders and fore wings and the coxæ orange-yellow; ventral surface of abdomen with white band

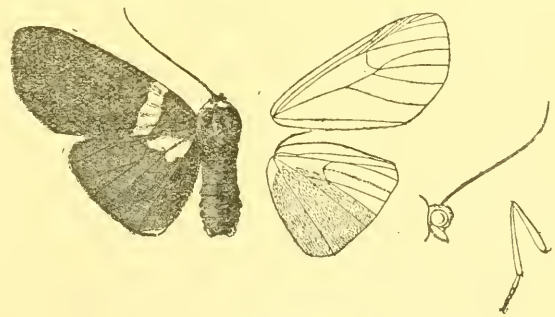

Fig. 104.—*Depalpata mirabilis*, ♂. ½.

at base of 2nd segment. Fore wing very dark chocolate-brown with a rather oblique ochreous yellow antemedial band with slightly sinuous edges. Hind wing brilliant metallic greenish blue, the inner area black-brown except at vein 1 and inner margin; white subbasal patches in and below the cell; cilia ochreous white towards

tornus. Underside of fore wing greyish black, the retinaculum white at tip, a slight medial white spot below costa and large spots in and below the cell, the last diffused outwards at lower extremity, a quadrate postmedial white patch between veins 7 and 5 conjoined to rounded spots above and below vein 4; hind wing with the area covered by androconia white with a white spot above it in the cell and some white beyond the cell, the base and costal area greyish black.

Hab. Br. N. Guinea, Hydrographer Mts. (*Meek*), 1 ♂ type † in Coll. Rothschild. *Exp.* 62 millim.

Page 538. Under **BURGENA** insert :—

Type.

Damias, Wlk. i. 14 (1854), nec Boisd. (1832), non descr. ..... *varia*.

26. Burgena varia, insert (syns.) :—

Damias varia, subsp. *euxantha*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 12 (1912).

Damias varia, subsp. *ravida*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 12 (1912).

Damias varia, subsp. *baia*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 12 (1912).

Damias varia, subsp. *anisa*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 12 (1912).

An aberration with the discoidal spot of fore wing reduced to a striga.

Damias varia tripartita, Joicey & Talbot, Trans. Ent. Soc. 1916, p. 80.

Fore wing with the postmedial white spot trifid and extending to above vein 5.—Dutch N. Guinea, Schauten Is.

luteistriga, Strand, Lep. Cat. v. p. 9 (1912).
for ab. 1.

27. Burgena splendida, insert :—

subsp. *pectoralis*, Jord. Nov. Zool. xi. p. 444 (1904).

Palpi black at sides with only a few white scales; mid and hind coxæ without orange hair.

Hab. Solomon Is., Isabel I. (*Meek*), 1 ♂, 1 ♀. *Exp.* 50 millim. Type in Coll. Rothschild.

27 *a*. Burgena reducta.

Burgena reducta, Jord. Nov. Zool. x. p. 487 (1903) : id. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 13. pl. 2 *b*.

Damias splendida, subsp. *dispar*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 13 (1912).

♂. Black; palpi with some white in front and at sides; frons with lateral white patches; an orange ring round neck; thorax shot with blue; fore coxæ orange; abdomen with orange bands on 2nd and 3rd segments and a narrower band at extremity of 4th. the

ventral surface with slight greyish segmental lines; wings shot with brilliant blue. Fore wing with blue point in cell near base and quadrate white spot in middle; a postmedial spot above vein 6 and two between veins 4 and 2. Hind wing with ill-defined band formed of orange irroration from lower angle of cell to inner margin; the underside with broader and better defined band from vein 5 to inner margin.

♀. Hind wing with more complete narrow orange band.

Hab. Solomon Is., Bougainville I. (*Meek*), 1 ♂, Rubiana I., type † ♂ in Coll. Rothschild, Kulambangra I. *Exp.* 50 millim.

29. Burgena chalybeata, insert :—

No. 28, *B. amœna*, which is the female of it.

subsp. *lucidea*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 13 (1912).

♀. Fore wing with the postmedial band extending to vein 7.

Hab. New Hanover (*Webster*), type † ♀ in Coll. Rothschild.

subsp. *rookensis*, Jord. Nov. Zool. xxii. p. 274, f. 2 (1915).

♂. Fore wing with black discoidal spot defined on inner side by a blue-white spot or scales conjoined to a patch extending from lower angle of cell to inner margin and to a white patch beyond lower angle of cell between the bases of veins 5 to 2 divided by slight black streaks on the veins.

Hab. Rook I. (*Meek*), type † ♂ in Coll. Rothschild; New Britain, 1 ♂.

30. Scrobigera amatrix, insert :—

subsp. *chinensis*, Jord. Seitz, Gr.-Schm. pal. iii. p. 6, pl. 1 c (1906).

The form from W. China.

subsp. *media*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 7 (1912).

Abdomen with orange bands on 2nd to 5th segments, the anal tuft black above.

Hab. Tonkin, Chiem-Hoa (*Frühstorfer*), type † ♂ in Coll. Rothschild.

31. Scrobigera proxima.

Larva. Piepers, Tijd. v. Ent. xlviii. p. 197.

33. Scrobigera vacillans, insert :—

subsp. *tæniata*, Roths. Nov. Zool. x. p. 487 (1903).

♂. Fore wing with the two lower spots of the medial series confluent and almost conjoined to the upper bar-shaped spot.

♀. Fore wing with the markings whiter, the spots of the medial series conjoined into a band, the postmedial bar narrower; hind wing with the cilia white towards apex only.

Hab. N. Celebes, Sawagan, 1 ♂, type † ♂, ♀ in Coll. Rothschild.

36. **Scrobigera vulcania**, insert:—

subsp. *melania*, de Joannis, Bull. Soc. Ent. Fr. 1900, p. 280; id. Bull. Sci. Dept. du Nord, xxxv. p. 339, pl. xvii. f. 1 (1901).

Tegulæ pale yellow; the hair of legs and anal tuft black; fore wing with the postmedial series of spots pale yellow.

Hab. Tonkin.

39. **Cruria donovani**, insert (syn.):—

subsp. *timorica*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 14 (1912).

Timor, Dili (*Doherty*), type † ♂ in Coll. Rothschild.

39 *a*. **Cruria synopla.** (Plate LXX. fig. 3.)

Cruria synopla, Turner, Trans. Roy. Soc. S. Austr. xxvii. p. 1 (1903).
Cruria synopla, latifascia, Jord. Seitz, Gr.-Schm. xi. Ind-Austr. ii. p. 15 (1912).

Black-brown; palpi with yellowish white stripes at sides and some white hair in front; sides of frons, spots behind antennæ, and gulæ yellowish; tegulæ and metathorax edged with yellow; pectus, coxæ, and femora clothed with orange hair; abdomen with yellowish bands, narrow on basal segments; anal tuft orange at tips. Fore wing with slight yellow streaks before basal half of costa and cell; a minute streak above middle of median nervure; an oblique discoidal bar; two postmedial spots below costa, a spot above vein 2, a point above 3, and dentate spots nearer the termen above veins 4, 5; three slight greyish subterminal spots below costa and a yellowish spot above tornus; cilia yellowish at apex and with three white points towards tornus. Hind wing with deep yellow maculate medial band, the spot between veins 6, 7 displaced outwards; cilia yellowish at apex and with three white points below middle. Underside of fore wing with the markings whitish, two streaks in basal part of cell; hind wing with yellow fascia on costa to beyond middle and streaks on the veins of basal area.

ab. 1. *latifascia*. Hind wing with the band slightly broader.

Hab. Queensland (*Weiske*), 1 ♂, co-type *latifascia*, Brisbane (*Turner*), 1 ♂, 1 ♀, Moreton Bay (*Diggles*), 1 ♂; N. S. Wales (*Raynor*), 2 ♂, 1 ♀. *Exp.* 54–60 millim.

*40 *a*. **Cruria epicharita.** (Plate LXX. fig. 4.)

Cruria epicharita, Turner, Ann. Queensl. Mus. x. p. 59 (1911).

♂. Head and thorax black-brown; a patch between antennæ, the sides of frons, and gulæ orange; palpi with some orange hair in front at base; tegulæ with orange bars; fore coxæ and femora with some orange hairs; abdomen black-brown with orange bar at base and six narrow bands, the anal tuft orange at extremity. Fore wing black-brown; a diffused whitish subbasal fascia above vein 1; a yellowish white patch in end of cell, elongate marks above veins 7, 6, 3, 2 and in submedian interspace and nearer the termen

above veins 5 and 4; slight subterminal marks above veins 7, 6, and 3; cilia white at apex. Hind wing black-brown; a very broad yellowish white band extending from the terminal part of cell and below vein 6 to inner margin, its inner edge rather irregular and its outer edge somewhat dentate; cilia white at apex.

Hab. Queensland, Cape York, type † ♂ in Coll. Turner. *Exp.* 56 millim.

41. Cruria darviniensis, insert (syn.):—

Cruria donovani, subsp. *xanthosoma*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 14 (1912).

N. Australia, Eureka (*Tunney*), type † ♂ in Coll. Rothschild.

subsp. *papuana*, Jord. Seitz, Gr.-Schm. xi. Ind-Austr. ii. p. 14 (Feb. 1912).

subsp. *papuana*, Strand, Lep Cat. v. p. 11 (March 1912)
for ab. 1. The male is like the typical form.

Hab. Br. N. Guinea, Aroa R. (*Meek*), type † ♂ in Coll. Rothschild, Port Moresby (*Rattle*), type † ♀.

Page 550. **ARGYROLEPIDEA**, insert:—

	Type.
Odice, Hübn. Verz. p. 258 (1827)	*pamphila*.

which has precedence.

*44 *a*. Odice lunaris.

Argyrolepidia lunaris, Roths. Nov. Zool. xii. p. 473 (1905); Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 23, pl. 3 *b*.

♂. Head and thorax chocolate-brown tinged with grey; palpi black, orange at base, the hair on 2nd joint with white mixed; frons with lateral white patches and white bar above, the sides of head white behind antennæ; pectus and hair on femora orange, the tibiæ irrorated with white, the tarsi ringed with white; abdomen chocolate-brown with blue bands, the ventral surface with white bands, the claspers fringed with orange hair. Fore wing chocolate-brown; subbasal line represented by a metallic blue striga below costa and point below cell; antemedial line represented by a series of metallic blue points, from costa to vein 1, incurved in cell, then excurved, a blue point beyond it above vein 1; a white bar across middle of cell irrorated with some brown scales; an oblique postmedial band from costa to vein 2 formed of white spots in the interspaces irrorated with brown, slightly incurved at vein 5, then excurved, some blue scales on it at costa; an oblique line of metallic blue scales below submedian fold and curved striga above inner margin beyond middle; a blue point beyond the postmedial band above vein 7; subterminal blue points on veins 3, 2, 1; cilia with white patch below apex. Hind wing black; a large silvery blue patch, in, just below, and beyond the cell, expanding below its extremity and a streak on vein 1 to beyond middle; a white lunule

beyond the cell near outer edge of the blue patch and small spots below veins 4 and 3; cilia with white patches below apex and at vein 1. Underside of fore wing with the base silvery blue; hind wing with the basal area silvery blue, expanding on inner area to the postmedial white band; cilia with white patch below apex and points at veins 4, 3, 2, 1.

Hab. Br. New Guinea, Angabunga R. (*Meek*), type † ♂ in Coll. Rothschild. *Exp.* 52 millim.

*44*b*. Odice palæa.

Argyrolepidia palæa, Roths. Nov. Zool. xii. p. 473 (1905), & xiii. pl. 3. f. 15; Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 22, pl. 3 *a*.

♀. Head and thorax deep red-brown; a white line behind the eyes; antennæ with the basal joint white in front; palpi orange at base, the 2nd joint with some white scales in front and at extremity; pectus and femora deep orange, the tibiæ and tarsi dark brown ringed with white; abdomen dark brown with blue-white segmental lines. Fore wing deep red-brown with indistinct paler oblique bar at middle of cell and pale discoidal bar with very indistinct oblique band from it to vein 2. Hind wing black with large oblique metallic blue patch from middle of costa to below vein 2, its inner edge slightly angled inwards below the cell; a white mark on cilia at submedian fold. Underside of fore wing with the bar at middle of cell and postmedial band white; hind wing with the basal area metallic blue, its outer edge excurved on inner half, a blue spot beyond upper angle of cell and bar between veins 4 and 2.

Hab. Br. New Guinea, Angabunga R. (*Meek*), type † ♀ in Coll. Rothschild. *Exp.* 50 millim.

45. **Odice pamphila**, insert (syn.):—

subsp. *madina*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 22 (1912).

Buru, Mt. Mada (*Dumas*), type † ♂ in Coll. Rothschild.

*45 *a*. Odice ombirana. (Plate LXX. fig. 5.)

Argyrolepidia pamphila, ombiranus, Jordan, Nov. Zool. xiii. p. 161 (1906).

♀. Head and thorax black-brown; frons with lateral white spots; antennæ with the basal joint white in front and white point behind, a white line behind eyes; palpi with some whitish on 1st and 2nd joint in front and behind; pectus and hair on femora orange; tarsi ringed with white; abdomen with blue-white segmental lines, the anal tuft orange. Fore wing black-brown; a subbasal metallic blue point below costa and antemedial points below costa and above vein 1; an oblique white striga at middle of cell; an oblique postmedial white band from vein 7 to 2 with waved outer edge; a small blue spot above tornus; cilia white towards apex. Hind wing black-brown; some blue scales at lower angle of

cell; cilia tipped with white. Underside of fore wing with some blue below base of costa, a small antemedial spot in cell, the spot at middle of cell and postmedial band bluish white; hind wing with the basal area suffused with metallic blue, its outer edge excurved on inner half, a large discoidal spot and traces of postmedial series of spots.

Hab. Obi Major (*Waterstradt*), type † ♀ in Coll. Rothschild. *Exp.* 44 millim.

49*a*. Odice integra. (Plate LXX. fig. 6.)

Argyrolepidia æqualis integra, Jord. Nov. Zool. xi. p. 446 (1904).

♂. Head and thorax black-brown; palpi fringed with orange in front and behind towards base and with some white in front of 2nd and 3rd joints; sides of frons and head white; tegulæ edged with white, patagia with white spots at extremity, metathorax with some white; pectus in front and coxæ orange; legs with some white hair; abdomen black with white segmental lines, the anal tuft orange. Fore wing black-brown with two series of small blue spots on basal area; a white spot in middle of cell; an oblique, slightly curved postmedial white band with blue spot on costa above it and a curved maculate blue line beyond it; a subterminal series of small blue spots; cilia white at apex. Hind wing black-brown with white patch from near base to beyond the cell and from subcostal nervure to vein 1, its outer edge curved and slightly indented at vein 2; cilia chequered white and black, entirely white towards apex. Underside of fore wing with blue streak below base of costa and spot in cell; hind wing with some blue below costa and on inner area, two postmedial spots below costa and two between veins 4 and 2.

♀. Fore wing with the white band broader and extending to near costa and below vein 2, its inner edge indented at these points; hind wing with the white patch extending to above vein 7, its outer edge not indented at vein 2.

Hab. Solomon Is., Choiseul I. (*Meek*), 1 ♂, 1 ♀, type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 48, ♀ 56 millim.

*49*b*. Odice concisa. (Plate LXX. fig. 7.)

Argyrolepidia concisa, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 23 (1912).

♂. Head and thorax deep chocolate-brown, the sides of head white, the vertex of head and patagia with a few blue-white hairs, the tegulæ with some blue-white hairs at tips; antennæ black; palpi with orange hair in front and behind towards base, and some white hair in front of 2nd joint; pectus orange; legs black-brown, the tibiæ and tarsi ringed with white; abdomen black-brown with narrow blue-white segmental bands, the anal tuft with some orange hairs, the ventral surface white except towards extremity. Fore wing deep chocolate-brown; some minute silvery blue spots on

basal area and some blue suffusion above base of inner margin; minute acute medial silvery blue spots below costa, in cell, and above vein 1; a short silvery blue postmedial streak below costa and a narrow oblique maculate band between veins 7 and 2; cilia white at tips at apex. Hind wing black-brown with a chocolate tinge; some silvery blue at base followed by a large oblique elliptical white patch slightly edged by silvery blue scales-in, beyond, and below the cell, extending above vein 1 to well beyond middle; cilia white at tips from vein 7 to discal fold. Underside of both wings with the basal area silvery blue.

Hab. Dutch N. Guinea, Oetakwa R., Snow Mts. (*Meek*), type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

*49 *c*. Odice capiens. (Plate LXX. fig. 14.)

Argyrolepidia æqualis capiens, Jord. Nov. Zool. xi. p. 446 (1904).

♂. Head, thorax, and abdomen black tinged with blue; palpi orange at base, white in front; sides of frons and vertex of head, and genæ white; tegulæ with some white scales at middle and edges, patagia with white spots; front of pectus, coxæ, and fringes of fore femora orange, tibiæ and tarsi with white points; abdomen with white segmental lines, the anal tuft orange. Fore wing black-brown; subbasal blue points below costa and cell; an oblique antemedial series of small blue spots; a white spot in middle of cell and rather irregular discoidal bar; postmedial and subterminal series of small blue spots, the former oblique below vein 3; cilia tipped with white at apex and above tornus. Hind wing black-brown tinged with blue; a rounded bluish white spot just beyond the discocellulars; cilia chequered white and black; the underside with the base of costa and inner area blue, some small spots between the white patch and inner margin and two postmedial spots below costa and one below vein 4.

Hab. Solomon Is., Treasury I. (*Meek*), type † ♂ in Coll. Rothschild. *Exp.* 50 millim.

*49 *d*. Odice unimacula. (Plate LXX. fig. 15.)

Argyrolepidia unimacula, Lower, Tr. R. Soc. S. Austr. xxvii. p. 29 (1903).

♂. Head and thorax red-brown; palpi with the 2nd joint white in front; a white line behind the eyes and spots behind base of antennæ; pectus yellowish white; legs banded dark brown and white; (abdomen wanting). Fore wing red-brown; a slight whitish discoidal lunule; an oblique white band from costa beyond middle narrowing to a point at tornus and with somewhat sinuous edges. Hind wing black-brown with a large somewhat irregularly elliptical white spot in, beyond, and below lower end of cell; a series of white points on the cilia; the underside with short diffused white streaks from base on costa and in and below the cell.

Hab. Queensland, Mackay, type † ♂ in Coll. Lower. *Exp.* 40 millim.

*49 *e*. Odice mutans.

Phalænoides mutans, Roths. Nov. Zool. viii. p. 220, pl. 9. f. 4 (1901).

♂. Head and thorax greyish brown; palpi in front and the hair on pectus and legs orange-yellow; abdomen fuscous black, the ventral surface whitish except towards extremity. Fore wing uniform dark brown with a cupreous tinge. Hind wing black; a large white patch in and below end of cell, edged with metallic blue diffused towards base of wing. Underside of fore wing with some metallic blue on basal area; a slight blue and white bar in end of cell and a series of three small white spots beyond the cell between veins 2 and 5 and blue spot above 5; hind wing with more metallic blue on basal and inner areas.

Hab. Br. New Guinea, Aroa R., type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

49 *f*. Odice aurea.

Argyrolepidia aurea, Roths. Nov. Zool. x. p. 315, pl. 12. f. 21 (1903); Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 24, pl. 3 *a* (1912).

Argyrolepidia aurea, subsp. *fervida*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 24 (1912).

♂. Head and thorax blue-black; palpi white at base and at sides of 2nd joint; sides of frons and vertex of head and genæ white; tegulæ slightly fringed with white; pectus and hair on fore femora yellowish white; abdomen orange, the basal segment black, the 2nd segment with black band, the ventral surface black, except the last two segments, with white bands and with white ventral stripe except on last three segments. Fore wing black shot with blue; a broad deep orange band from costa beyond middle where it is slightly dilated to tornus where it is bent inwards above inner margin. Hind wing black shot with blue and with orange band from below costa beyond middle expanding towards inner margin where it extends from near base to tornus, its outer edge rounded.

Hab. Dutch N. Guinea, Oetakwa R. (*Meek*), 1 ♂, type † ♂ *fervida* in Coll. Rothschild; Br. N. Guinea, Aroa R. (*Meek*), 1 ♂, type † ♂ in Coll. Rothschild. *Exp.* 50 millim.

Page 555. Genus **PHALÆNOIDES**, insert:—

	Type.
Eutactis, Hübn. Verz. p. 279 (1827)	*tristifica*.
Platagarista, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 21 (1912)	*tetrapleura*.

*56 *a*. Phalænoides resplendens.

Phalænoides resplendens, Roths. Nov. Zool. x. p. 487, pl. 12. f. 37 (1903); Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 23, pl. 4 *b*.

♂. Head black; 1st joint of palpi and sides of 2nd joint orange, the 2nd joint fringed with grey; sides of frons and vertex of head and genæ grey; thorax blue-black; shoulders and front of tegulæ

with some orange; pectus orange; abdomen blue-black with dorsal and lateral bands and the ventral surface greenish grey, the anal tuft tipped with orange. Fore wing black shot with blue; the veins of terminal half with fine blue-grey streaks; an oblique white postmedial band from below costa beyond upper angle of cell to vein 2 near termen with some blue-grey above it below costa and two slight blue-grey lines beyond it before termen. Hind wing with the termen excurved at middle; black shot with most brilliant blue and with a large rounded white patch extending from subcostal nervure to inner margin and from near base to towards termen below vein 3 and to tornus; the underside blue-black with some blue-grey at base and on outer edge of the white patch.

Hab. Br. N. Guinea, Up. Aroa R. (*Meek*), type † ♂ in Coll. Rothschild. *Exp.* 58 millim.

60. Phalænoides goldiei, insert :—

subsp. *figurata*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 24, pl. 3*a* (1912).

Abdomen with the basal segments not whitish above.

Hab. Humboldt Bay (*Doherty*), type † ♂ in Coll. Rothschild.

*60 *a*. Phalænoides perisa. (Plate LXX. fig. 16.)

Argyrolepidia goldiei, subsp. *perisa*, Jord. Seitz, Gr.-Schm xi. Ind.-Austr. ii. p. 24 (1912).

♂. Head and thorax deep chocolate-brown, the sides of frons and back of head white; the tegulæ with some orange hairs at tips; the patagia with small spot formed by blue-white hairs; palpi fringed with orange hair to near extremity of 2nd joint where the hair is white; pectus orange; legs black-brown, the tibiæ and tarsi ringed with white; abdomen black-brown with some white hair at base and dorsal white spots on 1st and 2nd segments, the anal tuft orange with dorsal black spot, the ventral surface with white bands. Fore wing deep chocolate-brown, the basal area with a few silvery blue scales and a minute subbasal spot in the cell; an oblique postmedial white band between veins 7 and 2, its lower extremity rounded; cilia white at tips at apex. Hind wing black-brown with a chocolate tinge; a large white patch from near base in, below, and beyond the cell, its outer edge excurved to vein 3, then excised; cilia white towards apex. Underside of fore wing with silvery blue streak below base of costa and small subbasal and medial spots in the cell; hind wing with silvery blue streak on base of costa and patch in and below the cell.

Hab. Br. N. Guinea, Milne Bay (*Meek*), type † ♂ in Coll. Rothschild. *Exp.* 46 millim.

*60 *b*. Phalænoides cremor. (Plate LXX. fig. 17.)

Argyrolepidia goldiei, subsp. *cremor*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 24 (1912).

♂. Head and thorax deep chocolate-brown, head white at sides; tegulæ with orange hair at tips; palpi with the first two joints

orange in front; pectus orange; tibiæ and tarsi ringed with white; abdomen black, the 2nd to 4th segments dorsally creamy white, the anal tuft orange with dorsal black spot, the ventral surface mostly white towards base, then with white bars. Fore wing deep chocolate-brown; an oblique postmedial creamy white band between veins 7 and 2, rounded below; cilia creamy white at tips at apex. Hind wing black-brown with a chocolate tinge; a broad creamy white antemedial band from below costa to inner margin where it is tinged with orange, rounded above and with its outer edge slightly waved to vein 2; cilia white at tips towards apex. Underside of fore wing with blue-white streak below base of costa, small antemedial spot in cell and slight streak on terminal part of subcostal nervure to the postmedial band which is slightly edged with blue; hind wing with blue-white streak on base of costa and some suffusion in and below base of cell, the patch slightly edged with blue.

Hab. Dutch N. Guinea, Mt. Goliath (*Meek*), type † ♂ in Coll. Rothschild. *Exp.* 40 millim.

Page 561. Genus **XANTHOSPILOPTERYX**, insert:—

	Type.
Heraclia, Hübn. Verz. p. 180 (1827)	*geryon*

which has priority.

64. **Heraclia perdix**, insert:—

angustella, Strand, Lep. Cat. v. p. 17 (1912) for ab. 1.

65*a*. **Heraclia flavisignata.** (Plate LXX. fig. 18.)

Xanthospilopteryx flavisignata, Hmpsn. A. M. N. H. (8) x. p. 609 (1912).

♂. Head and thorax black; 1st and 2nd joints of palpi, sides of frons, vertex of head, tegulæ at middle and sides and the patagia with paired yellow points, the meso- and metathorax with yellow points; pectus and femora with some yellow, the tibiæ striped with orange, the tarsi ringed with yellow; abdomen banded orange and black above and below. Fore wing black; three slight yellowish spots below basal part of costa and a slight spot below the cell; a small triangular yellow antemedial spot in cell and two small oblique spots above vein 1; a broad oblique bar across end of cell and an elliptical patch below the cell; an oblique band from below costa beyond middle to vein 4, towards termen its lower extremity curved outwards and separated by a black streak on vein 4 from a yellow spot below vein 4; a small spot above tornus; some slight silvery blue marks on basal area, an oblique striga in middle of cell, and a line on discocellulars; cilia yellowish white at apex. Hind wing reddish orange; a black terminal band, rather broad at apex, somewhat expanding at vein 2, and narrowing to tornus; cilia yellowish white at apex.

Hab. Br. E. Africa, Victoria Nyanza, Lusinga (*Neave*), 2 ♂ type. *Exp.* 66 millim.

66. **Heraclia africana**, insert :—

ab. *flava*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 5, pl. 1 *d* (1913).

Hind wing orange.

S. Africa, type † ♀ in Coll. Rothschild.

67. **Heraclia geryon**, insert :—

ab. *flava*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 6 (1913)

Hind wing orange.

69 *a*. **Heraclia atrifusa.** (Plate LXX. fig. 19.)

Xanthospilopteryx atrifusa, Hmpsn. A. M. N. H. (8) x. p. 610 (1912).

♂. Head and thorax black; 1st and 2nd joints of palpi, sides of frons, vertex of head, tegulæ at middle and sides, and patagia with paired white points; pectus and femora with some white, the tibiæ orange and black; the tarsi brown; abdomen black with narrow white segmental bands, the 2nd and 3rd segments with some yellow at sides, the anal tuft orange. Fore wing black; a white point below base of costa; a small triangular white antemedial spot in the cell, a slight spot above vein 1, and short streak above middle of inner margin; a quadrate white patch in end of cell and oblique quadrate patch below the cell; a postmedial trifid patch below the costa divided by black streaks on veins 7, 6; an elongate spot above vein 4 and spot below vein 4; a small spot above tornus; some slight silvery blue marks on basal area, an oblique striga in middle of cell, a slight streak below middle of cell, and line on discocellulars; cilia white at apex. Hind wing pale yellow suffused with black, the inner area except towards base less suffused; the terminal area black, expanding widely on costal area and narrowing to tornus, its inner edge rather diffused; cilia white at apex; the underside pale yellow, the costal area orange to the black terminal area and the costa narrowly black to base.

Hab. Uganda, Semliki Plains (*Neave*), 1 ♂ type. *Exp.* 68 millim.

71. **Heraclia superba**, insert (syn.) :—

Xanthospilopteryx basalifasciata, Bartel, Verh. zool.-bot. Ges. Wien. liii. p. 120 (1903).

Xanthospilopteryx maculipes, Strand, Mitteil. Zool. Berlin Verh. v. p. 301, fig. (1911).

A form with the antemedial spots of fore wing conjoined into an oblique band, and the hind wing orange-red.

ab. *ngandana*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 7 (1913).

Fore wing with the silvery blue markings more diffused; hind wing orange-scarlet.

Uganda, Usoga, Mtibua (*Ansorge*), type † ♂ in Coll. Rothschild.

ab. *separata*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 7 (1913).

= ab. *incongruens*.

Kosowa, Mori R. (*Roberts*), type † ♀ in Coll. Rothschild.

71 *a*. Heraclia atriventralis.

Xanthospilopteryx atriventralis, Hmpsn. P. Z. S. 1910, p. 396, pl. xxxvi. f. 13.

♂. Head and thorax black; 1st and 2nd joints of palpi, sides of frons, vertex of head, and tegulæ at middle and sides with paired white points; patagia with yellowish spots; tibiæ with yellowish bands, the femoro-tibial joints and tarsi with white points; abdomen black with dorsal and lateral yellow bands, the ventral surface black. Fore wing black with oblique silvery blue bar in middle of cell with slight streaks above and below it, a discoidal lunule and short streak on middle of vein 2; a subbasal yellow spot below costa, elongate antemedial spot below costa and small spot above vein 5, a spot in middle of cell and medial spot above vein 1; an oblique yellow band from below middle of costa to vein 1 towards tornus, dilated at vein 2 and ending in a point; an oblique subapical band from below costa to vein 3 near termen, its extremities rounded and a small subterminal spot above vein 1; cilia white at apex. Hind wing scarlet with a black terminal band expanding somewhat towards apex and at vein 2; cilia whitish at apex; the underside with the costa narrowly black to near base.

Hab. N.E. Rhodesia, Serenje Distr. (*Neave*), 1 ♂ type. *Exp.* 56 millim.

*71 *b*. Heraclia jugans.

Xanthospilopteryx jugans, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 7, pl. 4 *h* (1913).

♂. Head and thorax black with white spots at sides of frons and on vertex of head, two white spots at tips of tegulæ, a pair of slight spots on mesothorax, and yellowish white spots on patagia; genæ white; palpi with white spots on 1st and 2nd joints; pectus with white spots at sides; the fore coxæ and femora with some white, the tibiæ fulvous except at base and extremity, their extremities and the tarsi ringed with white; abdomen black with orange dorsal and lateral bands, the ventral surface with some orange before sides of anal tuft. Fore wing black; three small white spots below basal part of costa; minute orange-yellow antemedial spots below the cell and above vein 1 followed by larger spots in the cell and above vein 1; an oblique orange-yellow medial band from below costa to vein 1, its outer edge slightly indented at median nervure; an oblique postmedial orange-yellow band from below costa beyond middle to vein 3 near termen, rounded above and rather triangular below; a small subterminal spot above tornus; some silvery blue near base below costa and above vein 1, an oblique bar at middle of cell and streak below the cell, a curved discoidal striga and postmedial spots on veins 2 and 1; cilia white at apex. Hind wing deep crimson, a terminal black-brown band, broad at costa and its inner edge incurved at vein 2. Underside of fore wing with two white spots below costa and antemedial orange-yellow spot in and just below the cell, the medial band extending

to inner margin, its outer edge angled at veins 2 and 1 ; hind wing with the costal edge irrorated with black to near base and with orange-yellow below it.

Hab. Br. C. Africa, Lake Nyasa, Songwi Valley, type † ♂ in Coll. Rothschild. *Exp.* 64 millim.

72. Heraclia zenceri, insert :—

- *Xanthospilopteryx zenkeri*, ab. *ochracea*, Auriv. Ent. Tidskr. 1901. p. 122

Fore wing ochre-yellow ; hind wing chrome-yellow.
Congo, Stanley Falls.

ab. *flaviventris*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 2 (1913).

♀. Abdomen orange with dorsal black mark at base, lateral series of black spots and the ventral surface black ; fore wing with the spot in cell smaller, the oblique band much narrower and not reaching the costa.

Cameroons, Ja R., Bitje (*Bates*), 1 ♀ co-type.

ab. *nigriventris*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 2 (1913).

♀. Similar but abdomen black with a few orange scales.

Cameroons, Ja R., Bitje (*Bates*), type † ♀ in Coll. Rothschild.

72 *a*. Heraclia zeodita.

Xanthospilopteryx zeodita, Niepelt, Insectenborse, xxiii. p. 127 (1906) ; Roths. Nov. Zool. xiii. pl. 10. f. 7 (1906).

♀. Head and thorax black-brown with small white spots on 1st and 2nd joints of palpi, sides of frons, back of head, tegulæ, shoulders, and patagia ; fore tibiæ with yellowish bar at middle and fringe of hair on outer side and white band at extremity, the tarsi with white points at extremity of the joints; abdomen brown with a fulvous tinge. Fore wing golden brown ; the costa black, expanding on basal area and with five blue-white points on it ; a black patch in middle of cell with metallic silvery blue centre, expanding somewhat above ; a rather elongate black patch below middle of cell with silvery blue centre, its lower edge produced to a point ; an oblique black band from costa to lower angle of cell with lunulate silvery blue discoidal bar on it, conjoined to a rather diffused wedge-shaped band from it to the angle of the black terminal band which is broad at costa, its inner edge incurved, narrowing to vein 3, then angled inwards on vein 2 to the discal band and emitting a black fascia on inner margin to near middle with a slight streak from its upper edge to near the medial patch below the cell ; a golden brown subterminal spot above tornus ; cilia brown, pure white at apex. Hind wing deep orange with a black terminal band, its inner edge incurved at vein 2 ; cilia brown with white tips towards tornus, wholly white towards apex.

Hab. Congo State, Kassai, Luebo (*Landbeck*), 1 ♀. *Exp.* 34 millim.

*72 *b*. Heraclia niepelti.

Xanthospilopteryx niepelti, Oberth. Ann. Soc. Ent. Fr. 1910, p. 472, pl. 16. f. 2.

♀. Head and thorax brown, the tegulæ and patagia with white points; abdomen yellow. Fore wing black; two small orange spots below base of costa; a large triangular orange patch occupying the terminal two-thirds of cell and extending to just below it, basally conjoined to a conical orange patch from middle of cell to inner margin; an oblique black spot in middle of cell with blue bar on it; a blue discoidal bar, an oblique orange patch below end of cell; a broad oblique orange band from below costa beyond middle to vein 3 towards termen where it forms a small recurved hook; a subterminal orange spot in submedian fold; cilia white towards apex. Hind wing orange with a terminal black band, its inner edge incurved at vein 2; cilia white towards apex. Underside of fore wing with the orange in cell extending to base, no orange patch below middle of cell, the patch below end of cell conjoined to the orange in cell.

Hab. Congo, L. Tanganyika, M'pala. *Exp.* 64 millim. This species is unknown to me.

*72 *c*. Heraclia tanganyicana.

Xanthospilopteryx tanganyikana, Oberth. Ann. Soc. Ent. Fr. 1910, p. 471, pl. 16. f. 1.

♀. Head and thorax black, the latter with whitish patches; abdomen yellow with dorsal blackish bars. Fore wing black; two small white spots below base of costa and an angled orange mark below the cell; a large conical orange medial patch from below costa to just above inner margin with an oblique black band at middle from just below its upper edge to below middle of cell with two blue spots on it; an oblique blue discoidal bar; a broad oblique orange band from below costa beyond middle to vein 3 towards termen, rounded below; an orange subterminal spot in submedian fold; cilia white towards apex. Hind wing orange with a terminal black band, its inner edge incurved at vein 2; cilia white towards apex. Underside of fore wing with the orange extending to base, the medial black band interrupted at median nervure.

Hab. Congo, Tanganyika, M'pala. *Exp.* 72 millim. This species is unknown to me.

*72 *d*. Heraclia catori.

Xanthospilopteryx catori, Jord. Nov. Zool. xi. p. 443 (1904); id. Seitz, Gr.-Schm. xv. Afr. ii. p. 2, pl. 1 *a*.

♂. Head and thorax black; 1st and 2nd joints of palpi, sides of frons, and basal joint of antennæ with small white spots; tegulæ at middle and sides, patagia and meso- and metathorax with

yellowish white spots; pectus with white patches, femora, tibiæ, and tarsi with white points, the tibiæ with orange bands; abdomen black, dorsally orange except the terminal segments, a dorsal blackish spot at base, lateral, sublateral, and ventral series of white spots, the terminal segment with dorsal band. Fore wing black; a wedge-shaped orange patch between subcostal nervure and vein 1 from base to before middle and on vein 1 produced to a point beyond middle; an oblique orange medial band from subcostal nervure to vein 1, dilated and rounded below and its inner edge slightly angled inwards on median nervure; an oblique orange post-medial band from vein 10 to below 3 near termen, its lower extremity irregularly rounded; a small orange spot above tornus; a small white spot below base of costa, some subbasal silvery blue scales below costa; some silvery blue marks on the antemedial black band below costa, in and below cell, a discoidal bar, streak on vein 2 towards termen and point near tornus; cilia white at apex and chequered with white towards tornus. Hind wing scarlet with a black terminal band, narrowing somewhat below vein 3 and slightly angled inwards on vein 2; cilia chequered black and white. Underside of fore wing with the antemedial black band reduced to two spots.

♀. Thorax with the spots pure white; abdomen with dorsal series of yellow bands, the band on penultimate segment white, anal tuft orange. Fore wing with the orange markings confluent except the spot above tornus, the black bands reduced to two obliquely-placed medial spots with blue centres and an oblique discoidal bar with irregular blue bar on it, the terminal band strongly angled inwards on vein 2. Hind wing orange-red.

Hab. Sierra Leone, Moyamba (*Cator*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 52, ♀ 48 millim.

72 *e*. Heraclia limbomaculata.

Xanthospilopteryx limbomaculata, Strand, Soc. Ent. xxiv. p. 108 (1909); Jord. Seitz. Gr.-Schm. xv. Afr. ii. p. 2, pl. 2 *b*.

♂. Head and thorax black, the sides of frons with white spots, the vertex of head and tegulæ each with pair of spots, the patagia and mesothorax with spots, the metathorax with pair of spots, the palpi with white spots on 1st and 2nd joints; abdomen fulvous yellow with some black at base, the two terminal segments blue-black, the penultimate segment with lateral white patches; shoulders and pectus with white spots; fore legs with the tibiæ orange on outer side except at base, the femora, tibiæ, and 1st joint of tarsus with white spots at extremity, the mid and hind legs with orange patch on tibiæ above, the femora with white spots at middle and extremity, the tibiæ and 1st joints of tarsi with white spots at extremity and the hind legs with spot on 2nd joint of tarsus; the abdomen with lateral series of white bands. Fore wing blue-black with a triangular fulvous yellow patch from just below costa to vein 1, separated except below costa from an oblique medial band

by a black spot in the cell partially conjoined to an oblique mark below the cell each with a silvery blue bar on it, the medial band constricted below the cell and produced at lower extremity; a broad oblique fulvous yellow postmedial band from below costa to below vein 3 near termen with a spot below it above vein 1 and four rather elongate spots beyond it between veins 8 and 4; a white spot below base of costa and small subbasal patch of silvery blue scales; a rather lunulate silvery blue discoidal bar, streak on medial part of vein 2, and spot on vein 1 near tornus. Hind wing orange-scarlet with a blue-black terminal band, its inner edge incurved at vein 2; cilia with a series of small white spots to submedian fold. Underside with the markings orange-yellow, tinged with scarlet on basal half, the medial black markings reduced to two spots, the subterminal spots ochreous white; hind wing with the scarlet becoming orange-yellow towards costa, slight ochreous subterminal spots above and below vein 6.

♀. Abdomen dorsally banded orange and black, the penultimate segment with white band.

ab. 1. ♂. Fore wing with the fulvous yellow markings more developed, the black markings on medial area reduced to two small well-separated spots and the oblique discoidal band much narrower.

ab. 2. ♀. Similar but fore wing without the black spot below the cell on medial area.

ab. 3. ♂. Fore wing with the yellow markings reduced and tinged with greenish, the basal triangular patch small, the medial band reduced to a bar across the cell well separated from an oblique oblong patch below vein 2, the postmedial band narrower and more hooked at lower extremity; hind wing with a few black scales at upper angle of cell.

Hab. "Germ. E. Africa"; N.E. Rhodesia, Solwezi (*Dollman*), 4 ♂, 6 ♀. *Exp.* 64–76 millim.

72*f*. Heraclia discosticta.

Xanthospilopteryx discosticta, Hmpsn. P.Z.S. 1910, p. 396, pl. xxxvi. f. 23.

♂. Head and thorax black; 1st and 2nd joints of palpi, sides of frons, and back of head with white points; genæ white; tegulæ, shoulders, and patagia with yellowish white points, the last with some yellowish at tips; tibiæ with yellow bands, the base and extremities of tibiæ and the tarsi with white points; abdomen orange-yellow tinged with fuscous, the extremity and ventral surface black, sublateral and ventral series of small yellow spots. Fore wing black; whitish points at base below costa and cell; a large triangular antemedial yellow patch extending from below costa to vein 1; an oblique band from below middle of costa to above tornus, constricted just below the cell and rather pointed at lower extremity; a broad band from below costa beyond middle to near termen below vein 3 where its extremity is pointed and somewhat recurved; three obliquely-placed small yellow spots across

apical area and a subterminal spot in submedial fold; oblique silvery blue lines in and below middle of cell and on discocellulars; cilia with a series of white spots. Hind wing scarlet with a black discoidal striga and terminal band slightly angled inwards at vein 2; the cilia with a series of white spots. Underside of fore wing with the yellow markings tinged with scarlet; hind wing with small subapical patch of yellow scales.

Hab. N.W. Rhodesia, Alala Plateau (*Neave*), 1 ♂ type. *Exp.* 64 millim.

73. **Heraclia longipennis**, insert (syn.) :—

Xanthospilopteryx dönitzi, Grünberg, S.B. Ges. Naturf. 1910, p. 176, fig. 9.

and delete

Xanthospilopteryx abacata, Karsch.

*73 *a*. Heraclia abacata.

Xanthospilopteryx abacata, Karsch, Ent. Nachr. xviii. p. 181 (1892); Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 3, pl. 2 *a*.
Xanthospilopteryx lomata, Karsch, Ent. Nachr. xviii. p. 182 (1892); Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 3, pl. 5 *a*.

Head and thorax black with white points; abdomen yellow irrorated with black, the base blackish. Fore wing black; an oblique quadrate yellow patch in the cell towards extremity and triangular patch below the cell; an oblique postmedial band of spots, the spots below costa linear, the four next elongate, and the spot below vein 4 round and near termen; a small subterminal spot in submedian fold; cilia white at apex. Hind wing orange; the base blackish, emitting streaks on inner area; the veins with some blackish; the costal and terminal areas black, the latter expanding towards apex and at middle and narrowing to tornus; cilia white at apex.

ab. 1. *lomata*. Abdomen with dull yellow hair; fore wing shorter, the yellow patch in cell angled inwards above, the spot below the cell more tapering; hind wing ochreous yellow, the terminal band very broad, the cilia yellow at apex.

Hab. Cameroons. *Exp.* 96 millim. This species is unknown to me.

73 *b*. Heraclia atribasalis. (Plate LXX. fig. 20.)

Xanthospilopteryx atribasalis, Hmpsn. A. M. N. H. (8) x. p. 610 (1912).

♂. Head and thorax black; 1st and 2nd joints of palpi, sides of frons, vertex of head, tegulæ at middle and sides, and patagia with white points; genæ white; femora streaked with whitish, the fore tibiæ with some orange, the mid and hind tibiæ at extremities and the tarsi ringed with white; abdomen pale yellowish mixed with

blackish, the ventral surface more orange, lateral series of small black spots. Fore wing black; three slight whitish spots below basal part of costa; slight whitish antemedial spots below costa and cell and above vein 1; a rather quadrate yellow patch in end of cell and oblique patch below the cell; an oblique yellow postmedial band from below costa to vein 4 traversed by slight dark streaks on the veins, its lower extremity excurved and with a spot below it; a small spot above tornus; the basal area with slight silvery blue marks, an oblique striga in middle of cell, and discoidal line; cilia white at apex. Hind wing orange, the inner margin reddish, the base black; the terminal area black, broad at costa, expanding at vein 2 and narrowing to tornus; cilia white at tips; the underside scarlet, the black on costa extending to middle.

Hab. Br. E. Africa, S. Kakunnega Forest, Yala R. (*Neave*), 2 ♂ type. *Exp.* 72–80 millim.

74. Heraclia cirbyi, insert :—

campala, Strand, Lep. Cat. v. p. 16 (1912), for ab. 1.
alice, Strand, Lep. Cat. v. p. 16 (1912), for ab. 2.

and syn.

Xanthospilopteryx karschi, hollandi, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 3 (1913).

75. Heraclia æmulatrix, insert :—

subsp. *suda*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 4 (1913).

Fore wing with the markings yellow, the patch in the cell large and quadrate, the spots of the oblique band more conjoined.

Hab. "Germ. E. Africa," Lake Kivu, Kwidgwi I. (*Grauer*), 1 ♀ co-type.

and delete

Xanthospilopteryx lomata, Karsch.

75*a*. Heraclia neavi.

Xanthospilopteryx neavi, Hmpsn. P. Z. S. 1910, p. 397, pl. xxxvi. f. 14.

♀. Head and thorax black; 1st and 2nd joints of palpi, frons, and back of head with white points; genæ white; tegulæ, shoulders, and patagia with white points; tibiæ banded with orange, the tibiæ at base and extremity and the tarsi ringed with white; abdomen orange-yellow tinged with fuscous, the extremity blackish above, a lateral series of black points. Fore wing black; some small whitish spots below base of costa and two subbasal spots below the cell; a triangular yellow antemedial spot in cell, slight mark below the cell, and wedge-shaped mark above vein 1; a broad oblique bar across end of cell, expanding at lower extremity, and oblique patch below end of cell; an oblique band from below costa beyond middle to near termen at vein 3, somewhat constricted at vein 5 and its inner edge excised at vein 4; a subterminal spot

above tornus; a silvery blue striga in middle of cell and some scales below the cell and on discocellulars; cilia white at apex. Hind wing crimson with a black terminal band somewhat angled inwards at vein 2; the cilia white at apex; the underside with the black extending on costa to middle.

Hab. N.E. Rhodesia, Chinsali Distr. (*Neave*), 1 ♀ type. *Exp.* 72 millim.

75 *b*. Heraclia signata. (Plate LXXI. fig. 1.)

Xanthospilopteryx signata, Bartel, Verh. zool.-bot. Ges. Wien, liii. p. 122 (1903).

Xanthospilopteryx ruwensorica, Strand, Lep. Cat. v. p. 16 (1912).

Head and thorax black; 1st and 2nd joints of palpi and sides of frons with white points; genæ white; vertex of head, tegulæ at middle and sides, patagia, and mesothorax with pale yellow spots, the metathorax with slight orange spots; pectus, femora, and tibiæ orange and black, the tibiæ at extremities and tarsi ringed with white; abdomen dull yellow with some black towards extremity and at sides except towards base, subventral tufts of dull red hair at base. Fore wing black; three small yellowish spots below basal part of costa, and subbasal spots below the cell and above vein 1; an oblique antemedial series of small yellowish spots below costa, in cell, and above vein 1 and inner margin; an oblique quadrate yellow patch across end of cell and oblique patch below the cell; an oblique yellow band from below costa beyond middle to below vein 3 towards termen, its inner edge indented at veins 4, 3 and its outer edge sinuous; a small spot above tornus; some silvery blue marks on basal area, an oblique striga in middle of cell, streak below middle of cell, and discoidal line; cilia yellow at apex. Hind wing scarlet; some black at base; a terminal black band, rather broad at costa, expanding at vein 2 and narrowing to tornus; cilia yellow at apex; the underside with the basal half of costa orange, the black on costa extending to middle.

ab. 1. Hind wing orange-red.

Hab. Uganda, Unyoro, L. Kioga (*Neave*), 1 ♂, Mt. Elgon (*Neave*), 1 ♂, L. George (*Neave*), 2 ♀, N. Budu (*Neave*), 1 ♀. *Exp.* 60–86 millim.

75 *c*. Heraclia flavipennis.

Xanthospilopteryx flavipennis, Bartel, Verh. zool.-bot. Ges. Wien, liii. p. 121 (1903); Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 3, pl. 2 *a*.

Head and thorax black; 1st and 2nd joints of palpi, sides of frons, back of head, tegulæ, and patagia with paired white points; genæ white; pectus, coxæ, tibiæ, and tarsi with white spots and points; abdomen yellow slightly tinged with black, two black bands at base and the extremity black. Fore wing black; an oblique silvery blue bar at middle of cell with slight streaks above and below it and a discoidal lunule; a triangular yellow antemedial

patch in cell and almost confluent fasciæ below the cell above and below submedian fold and above inner margin where the fascia extends from near base to well beyond middle; an oblique conical yellow patch in end of cell and an oblique patch below basal half of vein 2; an oblique postmedial patch from below costa to below vein 3 near termen, its inner edge slightly irregular and bent inwards at lower extremity; a small subterminal spot below vein 2; cilia white at apex. Hind wing orange with a black terminal band expanding somewhat towards apex and at vein 2; cilia white at apex and tipped with white from vein 3 to tornus.

ab. 1. Fore wing with the yellow fasciæ above inner margin much shorter and hardly extending to middle of wing.

Hab. N. Rhodesia, Kambove Distr. (*Neave*), 4 ♂, 2 ♀. *Exp.* 64–88 millim.

75 *d*. Heraclia perpallida. (Plate LXXI. fig. 2.)

Xanthospilopteryx æmulatrix, perpallida, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 4 (1913).

Head and thorax black, the frons, head just behind antennæ, tegulæ, and patagia with paired white points; palpi with white points on each joint; genæ white; pectus with white mixed; fore tibiæ with yellow band; mid and hind femora and tibiæ with white streaks, the tibiæ at extremities and tarsi ringed with white; abdomen yellowish grey suffused with black, the ventral surface and anal tuft at extremity below more orange-yellow. Fore wing black; some slight pale blue marks below basal part of costa; an oblique short silvery subbasal streak above vein 1; a small yellow antemedial spot in the cell, an oblique silvery line beyond it across the cell and streak below middle of cell; an elongate yellow spot above inner margin before middle; an oblique quadrate yellow patch in the cell towards its extremity, somewhat constricted at middle and an oblique quadrate patch below it below vein 2; a curved silvery blue mark on the discocellulars; an oblique maculate yellow postmedial band between veins 8 and 3, the spot above vein 3 elongate with the spot below it below its extremity; a small yellow subterminal spot in submedian fold; cilia white at apex. Hind wing pale yellow; some fuscous at base; the outer edge of the yellow area obliquely curved from costa before middle to vein 4, then incurved to inner margin near tornus; the rest of wing black; cilia white towards apex. Underside of fore wing with some white marks in the cell towards base; hind wing with the black continued narrowly along the costa to base, the fuscous at base below the cell only.

ab. 1. Hind wing orange-yellow.

Hab. Uganda *(Jackson)*, type † ♂ in Coll. Rothschild, Entebbe (*Neave*), 1 ♀, Buddu (*Neave*), 1 ♂, Tero Forest (*Neave*), 1 ♂, Toro, Daro Forest (*Neave*), 3 ♂, 1 ♀, Lake George (*Neave*), 3 ♂, 1 ♀. *Exp.* 56–70 millim.

79. **Heraclia nigridorsa**, insert (syns.) :—

Xanthospilopteryx triseriata, Bartel, Verh. zool.-bot. Ges. Wien, liii. p. 125 (1903).

Xanthospilopteryx egregia, Wichgraf, Ent. Zeit. Guben, xxii. p. 106 (1908).

Xanthospilopteryx tessmanni, Strand, Arch. Naturg. lxxviii. A. vi. p. 195 (1912).

= ab. *karschi*.

*80 *a*. Heraclia batesi.

Xanthospilopteryx batesi, Druce, A. M. N. H. (8) v. p. 395 (1910); Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 5, pl. 4 *f*.

♀. Head, thorax, and abdomen black; 1st and 2nd joints of palpi, sides of frons, head behind antennæ, and tegulæ with small white spots; fore tibiæ with some yellow; mid and hind femora streaked with whitish. Fore wing black; some silvery bluish marks on basal area, in middle of cell, and on discocellulars; a minute yellow antemedial spot above median nervure, a triangular spot above vein 1 and elongate patch below it; an oblique quadrate orange-yellow patch in cell towards extremity and a large oblique patch below vein 2; a broad oblique postmedial band from below costa to above vein 3 towards termen, its lower extremity rounded and the veins on it streaked with blackish; a round spot above tornus; cilia white at apex and mixed with white towards tornus. Hind wing black, the cilia white; the underside with broad diffused yellow fascia below costa from near base to towards apex.

Hab. Cameroons, Ja R., Bitje (*Bates*), type † ♀ in Coll. Joicey. *Exp.* 82 millim.

*81 *a*. Heraclia gruenbergi.

Xanthospilopteryx gruenbergi, Wichgraf, Int. Ent. Zeit. v. p. 175 (1911); Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 3, pl. 2 *b*.

♂. Head, thorax, and abdomen black, the sides of frons and head between antennæ with white points, the tegulæ with two white points at tips, the patagia with slight white points; palpi with white spots on 1st and 2nd joints; legs irrorated with white, the tibiæ at extremities and tarsi at middle ringed with white, the fore tibiæ fringed with orange hair towards extremities; abdomen with fulvous streaks at sides towards base. Fore wing black; an oblique medial creamy white band formed by a large quadrate patch in the cell and patch below the cell, rather triangular below; postmedial creamy white spots from below costa to vein 5, an elongate spot below vein 5 with a spot below its extremity, and a minute subterminal spot at submedian fold; three minute blue spots below basal part of costa; some silvery blue above base of vein 1 followed by two minute blue spots, an oblique silvery blue striga at middle of cell and some scales in submedian fold, a curved silvery blue discoidal striga; cilia white at apex. Hind wing creamy white, the base and inner margin fuscous black, the terminal area black, broadly at costa, narrowing to tornus; cilia white at apex. Underside of fore wing with the spot above tornus larger; hind wing with the black on costa extending narrowly to base.

Hab. Br. E. Africa, Nairobi (*Jackson*), in Coll. Rothschild. *Exp.* 91 millim.

81. **Heraclia hornimani**, insert :—

No. 78. *X. melanosoma*, Druce, which is the male of it.

Xanthospilopteryx comaria, Druce, A. M. N. H. (8) v. p. 395 (1910).

A form of the male with the markings of fore wing paler and no streak between veins 3 and 2.

Cameroons, Ja R., Bitje (*Bates*), type † ♂ in Coll. Joicey.

Xanthospilopteryx minchini, Hmpsn. A. M. N. H. (7) xix. p. 241 (1907).

A form of the female with the antemedial and medial yellowish white patches confluent leaving more or less developed black spots in and beyond the cell.

Uganda, Entebbe (*Minchin*), 1 ♀ type ; occurs with the typical form in both East and West Africa.

ab. *diffusa*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 5, pl. 4 *g* (1913).

Fore wing with diffused yellowish white in cell and submedian interspace, the postmedial markings almost obsolete ; hind wing with the terminal area irrorated with blackish to vein 2.

Uganda, Toro (*Jackson*), type † ♀ in Coll. Rothschild, Mpanda Forest (*Neave*), 1 ♀.

Genus **ANDRHIPPURIS**.

Type.

Andrhippuris, Karsch, Ent. Nachr. xxi. p. 348 (1895) ... *cauda-equina*.

Proboscis fully developed ; palpi obliquely porrect, the 2nd joint fringed with rough scales, the 3rd short and thickly scaled ; frons with large corneous process with raised rim, its upper edge strongly produced ; eyes smooth ; antennæ moderately dilated at extremity ; tibiæ moderately fringed with hair ; abdomen without crests, the male with very long anal tuft. Fore wing with veins 3 and 5 from near angle of cell ; 6 from upper angle ; 9 from 10 anastomosing with 8 to form the areole ; 11 from cell. Hind wing with veins 3, 4 from angle of cell ; 5 obsolescent from middle of discocellulars ; 6, 7 stalked ; 8 anastomosing with the cell near base only.

In key differs from *Phalænoides* in the frontal prominence being long, the 3rd joint of palpi short and thickly scaled.

82*a*. **Andrhippuris cauda-equina.**

Andrhippuris cauda-equina, Karsch, Ent. Nachr. xxi. p. 353, pl. 1. ff. 1, 2 (1895) ; Roths. Nov. Zool. xiii. pl. 10. f. 12 ; Jord. Seitz, Gr.-Schm. xv. Afr. ii. pl. 2 *d*.

♂. Head and thorax black ; 1st and 2nd joints of palpi, frons at sides and above, shoulders and tegulæ with small white spots, the thorax with some orange scales ; hind tibiæ fringed with yellow hair, the tarsi with slight white rings ; abdomen black with subdorsal orange patches forming complete dorsal bands on 1st three segments, sublateral series of white patches. Fore wing orange, the veins and costa black, the apical area suffused with golden brown, broadly at costa, narrowing to vein 3 ; a basal black patch with two white striæ on it, its outer edge slightly produced in and

below the cell and as a fascia on inner margin to middle with patches of blue-white scales on it near base and before middle; a black patch with some blue-white scales on it in end of cell, its lower

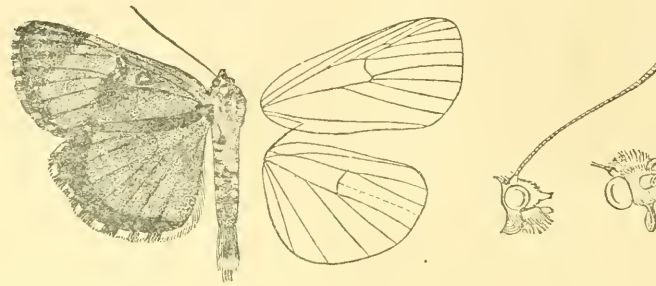

Fig. 105.—*Andrhippuris cauda-equina*, ♀. ½.

extremity produced to slight points on inner and outer sides; a lunulate black discoidal patch with blue-white lunule in centre; some slight black suffusion at lower angle of cell; a black fascia on terminal part of inner margin with a slight streak of blue-white scales on it towards tornus; cilia black-brown with series of white spots. Hind wing deep orange with black terminal band expanding somewhat towards costa, its inner edge produced to slight streaks on the veins; cilia black with a series of white spots. Underside of fore wing with the black patches in end of cell and on discocellulars conjoined and with oblique rather diffused band from them to above inner margin, its inner edge angled inwards to origin of vein 2.

♀. Fore wing without the oblique band below the discal patches.

Hab. Lr. Guinea, Mukenge; Congo State, Quango, Kassai, Luluaberg (*Landbeck*), 1 ♂. *Exp.* 60 millim.

82. **Polacanthopoda tigrina**, insert (syn.):—

ab. *flavifascia*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 17 (1914).

Cameroons, Ja R., Bitye (*Bates*), type † ♂ in Coll. Rothschild.

ab. *castaneimargo*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 17 (1914).

ab. *albifascia*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 17 (1914).

Fore wing with the upper part of the medial band in the cell, the discoidal bar, and the postmedial markings white.

Fr. Congo, Kuilu (*Morquerys*), type † ♂ in Coll. Rothschild.

ab. *nigrimargo*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 17 (1914).

Similar but fore wing without the red terminal band.

Gaboon, type † ♂ in Coll. Rothschild.

82 *b*. Polacanthopoda humfreyi.

Polacanthopoda humphreyi, Hmpsn. A. M. N. H. (8) viii. p. 113 (1911); Jord. Seitz, Gr.-Schm. xv. Afr. ii. pl. 4 *c*.

♂. Head black, white at sides; palpi white at base, the extremity of 2nd joint and base of 3rd white; antennæ with the shaft white above; thorax deep chocolate-red with the dorsum black, the tegulæ with white stripes, the thorax with white dorsal streak, the patagia with white stripes and orange hair on upper edge; pectus orange with some white at neck; fore legs black with orange streaks on femora and tibiæ, the latter fringed with white on outer side, the mid and hind legs orange, the mid tibiæ with black spots near base and extremity and white ring at extremity, the hind tibiæ with black spot near extremity and white ring at extremity, the tarsi black; abdomen orange with black dorsal stripe and some silvery scales in the crests, a black segmental line on 4th segment, the three terminal segments black ringed with white, the ventral surface with the four terminal segments black with patches of white. Fore wing deep chocolate red, the costal area blackish to beyond middle, the terminal area redder; a silvery streak on base of vein 1; an oblique white striga from base of costa; a very oblique subbasal yellowish white line from costa to submedian fold with a silvery spot before it below costa and line from cell to vein 1; an oblique white line irrorated with black from below costa before middle to below middle of cell with silvery mark below it above vein 1; some silver below antemedial part of costa and an oblique bar across middle of cell; an oblique white bar across end of cell; a silvery discoidal bar with some silver above it below costa, a yellowish spot below vein 2 and silver striga at inner margin; an oblique postmedial series of white streaks irrorated with black in the interspaces from costa to vein 3, then white irroration to inner margin with a silvery line before it, followed by an oblique white line from costa to vein 2, dentate between the streaks towards its lower extremity, then by a silvery line from costa to vein 4; a subterminal series of slight whitish streaks irrorated with blackish on each side of the veins. Hind wing deep orange with a broad black terminal band, its inner edge incurved below vein 2; cilia chequered black and white; the underside with black spot at upper angle of cell, the terminal band with whitish diffused spots before termen except towards apex and tornus.

Hab. S. Nigeria, Ilesha (*Humfrey*), 3 ♂ type. *Exp.* 50 millim.

Page 574. Genus **ROTHIA**, insert:—

	Type.
Pseudopais, Bartel, Verh. zool.-bot. Ges. Wien, liii. p. 127 (1903) ...	*nigrobasalis*.

Sect. I. (*Pseudopais*). Fore wing with the cell long; hind wing with the cell rather long; abdomen of male with thick lateral tufts of hair behind the stigmata.

84. **Rothia aisha**, insert:—

Xanthospilopteryx aisha, transiens, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 7 (1913) ♂.

Abdomen without yellow ventral bands except at extremity.

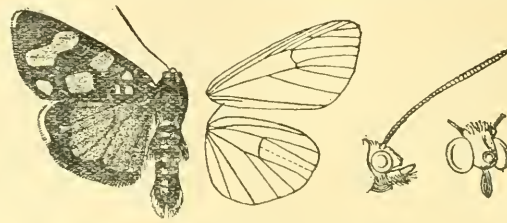

Fig. 106.—*Rothia aisha*, ♂. ½.

Uganda, Unyoro, Snidzi (*Ansorge*), type † ♂ in Coll. Rothschild.

85. **Rothia butleri**, insert:—

ab. *completa*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 7 (1913).

Fore wing with the yellow spot below end of cell conjoined to the spot in the cell and small.

Natal, type † ♀ in Coll. Rothschild.

Larva. Fawcett, Trans. Zool. Soc. xv. p. 317, pl. xlvii. ff. 14, 15 (1900).

Bluish grey with fine black transverse stripes and spots on each somite; a reddish spiracular line; head, legs, and 1st and 11th somites dorsally reddish ochreous; a few sparse hairs; claspers blue-grey, the anal claspers reddish ochreous. Food-plant, *Vitis*.

Pupa reddish fuscous, rugged in appearance, the abdominal segments strongly defined.

88 *a*. **Rothia nigrobasalis.**

Pseudopais nigrobasalis, Bartel, Verh. zool.-bot. Ges. Wien, liii. p. 127 (1903); Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 14, pl. 2 *a*.
Rothia subterminalis, Hmpsn. A. M. N. H. (8) viii. p. 414 (1911).

♀. Head and thorax black; palpi with two white points; frons with lateral white points; antennæ with the basal joint white in front; genæ white; tegulæ with dorsal and lateral white points, the shoulders with white points, the patagia, meso- and metathorax with paired white points; tibiæ with broad orange bands, the tarsi ringed with white; abdomen black with white segmental lines and sublateral and ventral series of white spots, the anal tuft orange. Fore wing black; three white points at base; an antemedial series of four small pale yellow spots; a medial patch from below costa to below cell and a spot above vein 1; a patch from below costa across end of cell and a triangular spot below end of cell; a post-

medial band from below costa to vein 3; a subterminal series of greenish white spots in the interspaces, the spots towards apex elongate, the spot above tornus pale yellow; a slight greenish white streak above middle of inner margin; the antemedial area with some silvery blue in cell and submedian interspace, a bar across middle of cell and patch below the cell, a discoidal bar from just below costa to below angle of cell and spot above inner margin; cilia pale yellow at tips. Hind wing scarlet with some black at base; a black terminal band slightly incurved at veins 3, 2; cilia yellowish white at tips. Underside of fore wing with the markings bright yellow, the patch in end of cell conjoined to the spot below the cell and spot above tornus, the subterminal spots absent.

Hab. "Germ. E. Africa," Mt. Rungwe, 6500′ (*Neave*), 2 ♀ type *subterminalis*, Nyasa. *Exp.* 42 millim.

*88 *b*. Rothia elongata.

Xanthospilopteryx elongata, Bartel, Verh. zool.-bot. Ges. Wien, liii. p. 124 (1903); Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 2, pl. 2 *a*.

♂. Head, thorax, and abdomen black-brown, the sides of frons, back of head, tegulæ, and shoulders with orange-yellow spots, the patagia with some orange-yellow scales at base; genæ yellow; palpi with white spots on 1st and 2nd joints; coxæ with white spots; tibiæ with yellow bands, their extremities and the tarsi ringed with white; abdomen with small white lateral spots except at base and yellow sublateral streaks towards base. Fore wing black; two orange-yellow spots below base of costa and a small subbasal spot above vein 1; an oblique antemedial band from below costa to vein 1; a quadrate spot in cell towards extremity and elliptical spot below vein 2; an oblique band from below costa beyond middle to below vein 4 near termen where its extremity is hooked; a small subterminal spot in submedian fold; some silvery blue irroration on basal area, in middle of cell, and on discocellulars. Hind wing orange-scarlet; a rather narrow terminal black-brown band, its inner edge angled outwards at vein 4, then sinuous. Underside of fore wing with the basal area orange-yellow, the medial spots conjoined; hind wing with the costal edge orange-yellow.

Hab. "Germ. E. Africa," Lake Nyasa, Manow, in Coll. Rothschild. *Exp.* 62 millim.

Sect. II. (*Rothia*). Fore wing with the cell much shorter; hind wing with the cell rather short; abdomen of male with slight lateral tufts of hair behind the stigmata.

89. Rothia vatersi, insert:—

var. *lutescens*, Oberth. Ét. Lép. Comp. xi. p. 247, pl. 370, f. 3090 (1916).

Hind wing with the scarlet replaced by yellow.

Madagascar, Fianarantsoa.

*89 *a*. Rothia holli.

Anaphela holli, Oberth. Ft. Lép. Comp. iii. p. 96, pl. x. f. 1 (1900); Seitz, Gr.-Schm. xv. Afr. ii. p. 10, pl. 5 *a*.

♂. Head white mixed with blackish; thorax dark red-brown with pale yellow spots on the patagia; abdomen dark brown with scarlet dorsal spot on basal segment and orange-yellow bands on the other segments. Fore wing dark red-brown; a small angled pale yellow antemedial spot in the cell, bar in end of cell, and sinuous band beyond the cell between veins 7 and 2. Hind wing scarlet, the base suffused with brown; a black-brown terminal band, its inner edge slightly incurved at vein 2. Underside of fore wing with some orange-yellow at base; hind wing with the scarlet extending to base.

Hab. Madagascar, Fianarantsoa. *Exp.* 46 millim. This species is unknown to me.

*89 *b*. Rothia fianarantsoa.

Anaphela fianarantsoa, Oberth. Ann. Soc. Ent. Fr. lxxix. p. 471, pl. 16. f. 5 (1911).

Head yellowish, the vertex and antennæ brown; thorax dark brown, the tegulæ and prothorax with small yellow spots, the patagia with small yellow spots; abdomen orange-yellow with series of rather triangular brown dorsal spots. Fore wing black-brown; some yellow points below base of costa and a slight streak above inner margin; an oblique yellow band from below costa at end of cell to above inner margin, pointed below and with slightly sinuous edges; cilia white towards apex. Hind wing deep crimson, the basal half with some brown suffusion; the inner margin orange; a terminal black-brown band, broad at costa, narrowing towards tornus; cilia white towards apex. Underside of fore wing with the base of inner area orange; hind wing without brown suffusion on the crimson area, its outer edge obliquely curved.

Hab. Madagascar, Fianarantsoa (*Perrot*). *Exp.* 50 millim. This species is unknown to me.

91. Rothia simyra, insert :—

ab. *nigrifimbriata*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 8 (1913).

Both wings with the cilia wholly black.

Madagascar, Morondava, type † ♂ in Coll. Rothschild.

*91 *a*. Rothia cruenta. (Plate LXXI. fig. 3.)

Rothia cruenta, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 8 (1913).

♂. Head, thorax, and abdomen black, the sides of frons, back of head, tegulæ, and patagia with small white spots; palpi with white spots on 1st and 2nd joints and some orange hair at base in front; pectus and legs orange, the tarsi suffused with black; ventral surface of abdomen orange expanding into oblique lateral bars and

with black bars towards extremity. Fore wing black; an oblique creamy white medial band with sinuous edges from upper angle of cell to vein 1; cilia white at apex. Hind wing white with an oblique elliptical blue patch with some whitish in centre in and below end of cell; cilia white at apex. Underside of fore wing with some orange at base; hind wing crimson with some orange at base, the terminal area black, obliquely curved from costa near base to vein 4, then sinuous to tornus.

Hab. Madagascar, type † ♂ in Coll. Rothschild. *Exp* 66 millim.

92. Rothia zea, insert:—

ab. *divisa*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 8, pl. 3 *b* (1913).

Fore wing with the postmedial spots separate (in the typical form they are conjoined).

Madagascar, Morondava, type † ♂ in Coll. Rothschild.

*95 *a*. Rothia dayremi.

Anaphela dayremi, Oberth. Ét. Lép. Comp. iii. p. 96, pl. x. f. 2 (1909); Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 10. pl. 5 *a*.

♂. Head and thorax red-brown, the vertex of head and spots on the patagia pale yellow; abdomen dark brown banded with orange-yellow. Fore wing dark red-brown; a small pale yellow antemedial spot in the cell and point below the cell; a pale yellow bar across end of cell and two points below the cell; postmedial pale yellow spots below vein 7 and between veins 5 and 3; cilia pale yellow at submedian fold. Hind wing orange-yellow; the base and a fascia above inner margin dark red-brown; the inner margin yellow; a terminal dark red-brown band, its inner edge incurved at discal fold and vein 2. Underside of fore wing with yellow streaks at base; hind wing with the yellow extending to base and inner margin.

Hab. Madagascar, Antsianaka. *Exp.* 46 millim. This species is unknown to me.

*97 *a*. Rothia pouelli.

Anaphela pouelli, Oberth. Ét. Lép. Comp. iii. p. 97, pl. x. f. 3 (1909); Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 11, pl. 5 *a*.

♀. Head, thorax, and abdomen black-brown mixed with greyish; tegulæ yellow; abdomen laterally yellow to near extremity. Fore wing dark red-brown; two slight yellow streaks on basal inner area; a small pale yellow spot beyond upper angle of cell with oblique spot below it between veins 5 and 3; cilia white at apex. Hind wing dark red-brown with a large oblique white patch from costa to submedian fold, extending on costa from near base to beyond middle; the inner margin white. Underside of fore wing with the base yellow, a small white spot beyond upper angle of

cell and larger spots above veins 5 and 4 only separated by the brown veins; hind wing orange-yellow extending on costa to middle and on inner area to tornus, its outer edge curved and excurved beyond lower angle of cell.

Hab. Madagascar, Fianarantsoa. *Exp.* 42 millim. This species is unknown to me.

*97 *b*. Rothia hampsoni.

Rothia hampsoni, Oberth. Ét. Lép. Comp. xi. p. 247, pl. 370. f. 3095 (1916).

Differs from *R. vestroodi* in the upperside of the wings having the patches white instead of yellow; hind wing on underside with the creamy white patch separated from the inner margin by a broad black space; both wings with the cilia white at tips towards apex.

Hab. Madagascar, Antsianaka. *Exp.* 42 millim. This species is unknown to me.

98. Rothia tranquilla, insert:—

ab. *tenuis*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 9 (1913).

Fore wing with the band very narrow, interrupted and obsolescent between veins 4 and 2.

Madagascar, type † ♂ in Coll. Rothschild.

ab. *sinefascia*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 9 (1913).

Fore wing with the band absent.

99. Rothia micropales, insert:—

ab. *cæcata*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 9 (1913).

Fore wing with the postmedial band expanding below vein 5; hind wing with the blue patch larger and without white centre.

Madagascar, Morondava, type † ♀ in Coll. Rothschild.

101. Rothia lasti, insert:—

subsp. *epiera*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 10 (1913).

Fore wing with the postmedial band narrower; hind wing with the patch much smaller, reduced above vein 5 to a bar just beyond the cell, its outer edge more waved below vein 5.

Hab. Madagascar, Diego Suarez, type † ♂ in Coll. Rothschild.

*101 *a*. Rothia gracilis. (Plate LXXI. fig. 4.)

Rothia gracilis, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 10 (1913).

♂. Head and thorax deep chocolate-brown with white spots at sides of frons, behind antennæ, and on tegulæ and patagia; palpi with white spots on 1st and 2nd joints; pectus and legs orange, the tarsi black ringed with white; abdomen black-brown, the ventral surface orange with some blackish towards extremity.

Fore wing deep chocolate-brown; minute white subbasal, antemedial, and medial spots in upper part of cell; a broad oblique creamy white band from below costa just beyond the cell to above tornus, its edges slightly sinuous; some silvery blue irroration below basal part of costa, an oblique striga in middle of cell, a curved discoidal striga and oblique series of spots from below end of cell before the band with another striga before the spot above inner margin; a subterminal series of small silvery blue spots from below costa to vein 2; cilia dark brown. Hind wing black-brown with a chocolate tinge; a large creamy white patch beyond the cell between discal fold and vein 1, its outer edge trisinuate; cilia white-tipped at apex. Underside of fore wing with subbasal tuft of orange hair from median nervure, the antemedial and medial creamy white spots in the cell larger.

Hab. Madagascar, Camp d'Ambras, type † ♂ in Coll. Rothschild. *Exp.* 42 millim.

104 *a*. Rothia panganica.

Rothia panganica, Karsch, Ent. Nachr. xxiv. p. 330 (1898); Roths. Nov. Zool. xii. pl. v. f. 18; Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 10, pl. 3 *d*.

Head, thorax, and abdomen black; 1st and 2nd joints of palpi, frons, vertex of head, tegulæ, and patagia with small paired creamy white spots; pectus with some orange hair, the fore femora and tibiæ banded with orange; anal tuft with some orange hair. Fore wing black; small creamy white spots at base, middle, and near end of cell above median nervure; a rather quadrate spot beyond upper angle of cell and a rounded patch beyond lower angle; some silvery scales below costa near base, in middle of cell, and a discoidal bar; some silvery scales in submedian interspace before and beyond middle and near termen; cilia with some white at apex. Hind wing black with a creamy white patch on termen and cilia at submedian fold, the cilia white at apex.

ab. 1. Fore wing without the white spots in cell, the patches beyond the cell conjoined to form an oblique band; cilia of neither wing white at apex.

Hab. "Germ. E. Africa," Usambara Nguelo; Br. C. Africa, Lauderdale, Mt. Mlanje (*Neave*), 7 ♂, 3 ♀. *Exp.* 40–42 millim.

105. Veymeria athene, insert (syn.) :—

ab. *suffusa*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 11 (1913).

"Germ. E. Africa," Tanganyika, type † ♀ in Coll. Rothschild. The male has the spots on the terminal band of fore and hind wings pure white.

107. Arctiopais ambusta, insert :—

ab. *melanura*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 12 (1913).

♀. Abdomen with the anal segment black (in the typical form it is orange).

Madagascar, Morondava, type † ♀ in Coll. Rothschild.

Page 587. Under **CHARILINA** insert :—

Type.
Crameria, Hübn. Verz. p. 168 (1827) ..... *amabilis*

which has precedence.

108. **Crameria amabilis**, insert :—

abyssinica, Strand, Lep. Cat. v. p. 21 (1912), for ab. 1.
nyassica, Strand, Lep. Cat. v. p. 21 (1912), for ab. 2.
accra, Strand, Lep. Cat. v. p. 21 (1912), for ab. 3.

Genus **CHOEROPAIS**.

Type.
Choeropais, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 13 (1913). *jucunda*.

Proboscis fully developed ; palpi porrect, slightly fringed with hair below and not extending as far as the long corneous frontal prominence, obliquely truncate and with raised edges at extremity ; antennæ moderately dilated towards extremity ; fore tibiæ with short curved claw at extremity on inner side, the hind tibiæ slightly fringed with hair above ; abdomen without crests. Fore wing long and narrow, the apex rounded, the termen obliquely curved ; veins 3 and 5 from near angle of cell ; 6 from below upper angle ; 9 from 10 anastomosing with 8 to form the areole ; 11 from cell. Hind wing with veins 3, 4 from angle of cell ; 5 obsolescent from middle of discocellulars ; 6, 7 from upper angle ; 8 anastomosing with the cell near base only.

In key differs from *Pais* in the fore tibiæ having a claw at extremity.

110 *a*. **Choeropais jucunda.**

Pseudospiris jucunda, Jord. Nov. Zool. xi. p. 444 (1904) ; id. Seitz, Gr.-Schm. xv. Afr. ii. p. 13, pl. 3*f*.

♂. Head and thorax black ; palpi, sides of frons, and back of head with yellowish white spots, tegulæ, patagia, and thorax marked with yellowish white ; legs with whitish streaks, tarsi ringed with whitish ; abdomen orange with segmental black lines connected by a dorsal streak except on basal segments, the ventral

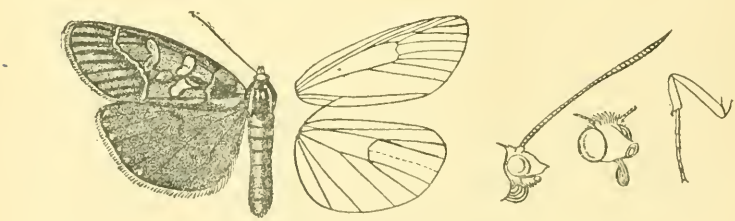

Fig. 107.—*Choeropais jucunda*, ♂. ½.

area brown with whitish bands. Fore wing pale yellow ; the costa black with a reddish streak irrorated with silver on it on medial area ; the inner margin red from before middle ; two fine subbasal black lines from costa to cell ; a triangular red patch below the cell to the antemedial black line, defined by silvery white on inner side,

oblique from costa to submedian fold where it is slightly angled, then incurved, the medial area with silvery white markings defined by black consisting of three spots on median nervure connected with an elliptical spot in cell and another below the cell joined to antemedial line by a streak in submedian fold, a rather narrow discoidal lunule, the veins beyond the cell and vein 1 streaked with black; postmedial line black defined by silvery white on outer side, very minutely waved, oblique from vein 6 to lower angle of cell, then incurved, some red and silvery suffusion beyond it; the veins of terminal area streaked with red with some black scales towards termen; cilia black at base, yellow at tips. Hind wing red, the cilia black at base, yellow at tips, some slight yellow marks on termen; the underside with slight discoidal lunule.

♀. Hind wing orange, a black discoidal lunule, the terminal area black, defining the yellow spots.

Hab. Angola, Bihe (*Pemberton*), 1 ♂, 1 ♀. *Exp.* 54 millim.

111. Pais decora, insert (syns.) :—

Pais festiva, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 14, pl. 3*f* (1913).
Pais festiva, nigripectus, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 14 (1913).

Natal, type †, and Cape Colony, Transkei, type † ♂ *nigripectus* in Coll. Rothschild.

111*a*. Pais nyassana.

Pais nyassana, Bartel, Verh. zool.-bot. Ges. Wien, liii. p. 128 (1903); Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 14, pl. 3*f*.

♂. Head and thorax black; 1st and 2nd joints of palpi, sides of frons, vertex of head, and tegulæ and patagia with white spots; genæ white; patagia fringed with orange hair above; coxæ orange; tibiæ and tarsi banded with orange and white; abdomen black banded with orange, the ventral surface with yellowish white. Fore wing yellowish flesh-colour, the basal area below the cell, the discal fold and postmedial area suffused with purplish red; some black at base followed by a black spot in the cell; a bisinuate antemedial line, interrupted in submedian fold, then double, filled in with flesh-colour and retracted to inner margin; orbicular a rather small black ocellus filled in with grey; reniform black filled with grey, constricted at middle and bisected by the red in discal fold; postmedial line double filled in with flesh-colour, the inner line strong and slightly interrupted in discal and submedian folds; terminal area black with a series of somewhat wedge-shaped ochreous spots; cilia ochreous intersected with black. Hind wing ochreous suffused with red; an obsolescent black discoidal lunule and sinuous postmedial line more distinct on underside; termen black with some ochreous points at the veins; cilia black at base, ochreous intersected with black at tips.

Hab. Br. C. Africa, Nyasa; Angola, Bihé (*Pemberton*), 1 ♂. *Exp.* 44 millim.

*111 *b*. Pais ansorgei. (Plate LXXI. fig. 20.)

Pais ansorgei, id. Nov. Zool. xi. p. 445 (1904); id. Seitz, Gr.-Schm. xv. Afr. ii. p. 12, pl. 4 *a*.

♂. Head orange; palpi with the extremity of 2nd joint, the 3rd joint, frontal prominence, and antennæ black; thorax black with yellowish spots on tegulæ and shoulders and streaks on patagia and thorax; pectus orange-yellow, legs orange-yellow and black; abdomen orange-yellow with black segmental lines expanding dorsally. Fore wing flesh-red; the base of costal area black with a pale spot followed by some silvery blue scales; the medial part of costa irrorated with black; vein 1 streaked with black and with two antemedial bars from it to inner margin; a black bar across middle of cell with silvery blue spots on it in cell and on median nervure; a black discoidal bar with silvery blue centre, constricted at middle; postmedial line black, slightly excurved and somewhat angled inwards at discal fold with a silvery blue line just beyond it with black streaks on the veins from it to the terminal black line; cilia black with brownish tips. Hind wing flesh-red with a blackish streak on basal half of vein 1; a small elliptical black discoidal spot; a curved black subterminal line slightly angled inwards at vein 2 and diffused to termen towards tornus, with black streaks on the veins between it and the terminal black line; cilia black at base, ochreous white at tips.

Hab. Angola, Bula Matenga (*Ansorge*), type † ♂ in Coll. Rothschild. *Exp.* 50 millim.

Genus APÆGOCERA.

	Type.
Apægocera, Hmpsn. A. M. N. H. (7) xv. p. 449 (1905) ...	*argyrogramma*.

Proboscis fully developed; palpi upturned, the 2nd joint fringed with long hair in front forming a pointed tuft at extremity, the 3rd long, porrect, dilated at extremity; frons with truncate conical prominence with raised rim; eyes smooth; antennæ moderately dilated towards extremity; tibiæ nearly smooth and without spines; abdomen with dorsal crests on basal segments. Fore wing with vein 3 from towards angle of cell; 5 from well above angle; 6 from upper angle; 9, 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with vein 2 from near angle of cell; 3, 4 from angle; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

In key differs from *Massaga* in the abdomen having crests on basal segments.

111 *c*. Apægocera argyrogramma.

Apægocera argyrogramma, Hmpsn. A. M. N. H. (7) xv. p. 449 (1905); Jord. Seitz, Gr.-Schm. xv. Afr. ii. pl. 4 *a*.

♂. Head and thorax black; palpi with some white at extremity of 1st and 2nd joints; sides of frons white; back of head, tegulæ, patagia, pro-, meso-, and metathorax with paired white spots, patagia fringed with fulvous; abdomen black with white segmental lines, the first three segments fulvous with the dorsal crests

blue-black; pectus and femora fulvous, the tibiæ and tarsi fuscous ringed with white. Fore wing with a small black and white patch at base of costal area, then fulvous suffused with fuscous extending on costa to middle and on inner margin to near tornus, the outer edge of this area very oblique and sinuous; a small round white spot at upper angle of cell placed between the arms of a silvery

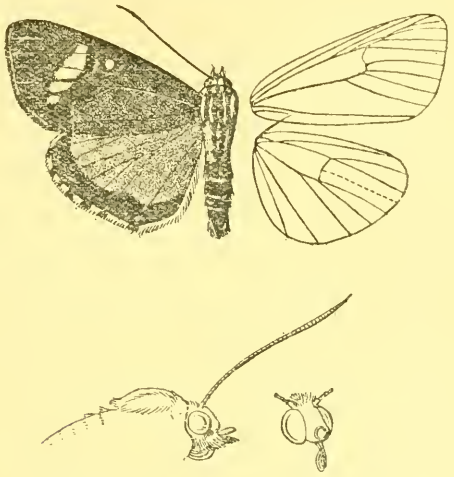

Fig. 108.—*Apægocera argyrogramma*, ♂. ½.

blue Y-shaped mark; an oblique postmedial band of five white spots from vein 7 to below 3, the three upper spots conjoined. Hind wing bright fulvous red with a rather broad terminal black band expanding slightly at vein 2 and tapering to a point on inner margin beyond middle; cilia chequered black and white.

Hab. Ashanti, Obuassi (*Bergman*), 1 ♂ type. *Exp.* 62 millim.

111 *d*. Apægocera aurantipennis. (Plate LXXI. fig. 5.)

Apægocera aurantipennis, Hmpsn. A. M. N. H. (8) x. p. 611 (1912).

♂. Head and thorax black; 1st and 2nd joints of palpi with white spots; frons white at sides; genæ white; tegulæ at middle and sides, patagia, meso- and metathorax with white spots, the patagia at tips and sides of metathorax with orange-red hair; pectus orange; femora streaked with orange, the tibiæ at extremities and tarsi ringed with white; abdomen black with narrow white segmental bands, the sides with some orange at base. Fore wing reddish orange; the terminal area black-brown, very broad at costa and extending as a triangular patch into upper extremity of the cell where there is a white spot on it, narrowing to tornus; a white postmedial patch between veins 7 and 4 traversed by dark

streaks on veins 6 and 5 and small subterminal spots below veins 4 and 3; a silvery blue discoidal bar; cilia with some white above tornus. Hind wing reddish orange; a narrow black-brown terminal band expanding somewhat at vein 2 and inner margin; cilia chequered black-brown and white.

Hab. Uganda, Kampala (*Neave*), 1 ♂ type. *Exp.* 62 millim.

112. **Metagarista mænas**, insert:—

subsp. *disjuncta*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 15 (1914).

Fore wing with the lower extremity of reniform produced to a point on vein 3; hind wing with the maculate terminal band reduced to streaks in the interspaces.

Hab. Congo, Bopoto (*K. Smith*), type† ♀ in Coll. Rothschild.

Page 595. Under **ÆGOCERA** insert (syn.):— Type.

Syfanoidea, Bartel, Verh. zool.-bot. Ges. Wien, liii. p. 125 (1903). *schenci*.

*121 *a*. **Ægocera fuscicosta.** (Plate LXXI. fig. 6.)

Ægocera fervida, fuscicosta, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 18 (1914).

Hind wing of ♂ with the fringe of hair on inner area less strongly developed.

♂. Head creamy white with fine deep red lines at side of frons and behind the eyes; antennæ black-brown; palpi yellow, the 2nd joint deep red at sides, the 3rd white at base, deep red at tips; thorax deep red with a creamy white dorsal stripe; pectus and legs orange-yellow, the fore and mid tibiæ with black spots, the tarsi black ringed with white; abdomen orange-yellow, the crests dark brown at tips. Fore wing deep red, the inner and terminal areas irrorated with white; a creamy white costal fascia strongly irrorated with black and with some silvery blue near base to end of cell; an oblique creamy white fascia from base of costa above submedian fold to well beyond middle, with an oblique antemedial silvery blue striga from its lower edge and a silvery blue bar beyond it; a silvery striga at middle of cell and curved discoidal striga; a very obliquely creamy white band from costa at extremity of the costal fascia to just above vein 2 near termen, the costa beyond it black-brown irrorated with white, the termen with a few silvery blue scales; cilia white. Hind wing yellow; a narrow black-brown discoidal bar; a deep red terminal band from costa to near tornus, rather broader at costa, then narrow, its inner edge slightly angled inwards at vein 2, some yellow on it in submedian interspace; cilia white tinged with yellow. Underside of fore wing yellow, a round red spot in middle of cell, a lunulate red discoidal patch, its lower part produced as an oblique fascia between veins 3 and 2, the terminal area red, its inner edge oblique from costa beyond middle to vein 3 near termen, then bent inwards at vein 2; hind wing with the discoidal bar red, the terminal band ending at submedian fold.

Hab. Angoniland (*Andrews*), type † ♂ in Coll. Rothschild. *Exp.* 50 millim.

122. **Ægocera brevivitta**, insert (syn.) :—

Ægocera irangiana, Wichgraf, Int. Ent. Zeit. vii. p. 14 (1913).

124*a*. **Ægocera geometrica.** (Plate LXXI. fig. 7.)

Ægocera geometrica, Hmpsn. P. Z. S. 1910, p. 398, pl. xxxvi. f. 15.

♀. Head white, black at sides; palpi chocolate-red fringed with yellow and brown hair, the extremity of 2nd joint white, the 3rd joint white at base, black at tip; antennæ black with some white above; thorax chocolate-red with white patches on shoulders and metathorax; pectus and legs orange, the fore and mid femora with some black above and the tibiæ with black spots, the terminal joints of tarsi black above, abdomen orange with a dorsal black patch at base. Fore wing chocolate-red; the costa black irrorated with white, the costal edge white except towards base; an oblique white streak from below base of costa to vein 1 beyond middle where it is met by a narrow white band from costa; cilia white. Hind wing orange with a broad black terminal band; cilia yellow at tips. Underside of fore wing yellow with the terminal area black-brown, a round black spot in end of cell almost confluent with a black bar beyond the cell angled inwards below its extremity.

Hab. Congo, Kambove Distr. (*Neave*), 1 ♀ type. *Exp.* 42 millim.

124. **Ægocera fervida**, insert :—

subsp. *media*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 18 (1914).

Smaller; hind wing with the discoidal spot smaller, the terminal band less angled inwards at vein 2.

Hab. Angola, Cauhoca (*Ansorge*), type † ♂ in Coll. Rothschild, Bange Ngola (*Ansorge*), ♀. *Exp.* 42 millim.

125. **Ægocera obliqua**, insert :—

subsp. *remutata*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 18 (1914).

Fore wing with the oblique subapical band of almost even width throughout.

Hab. Uganda, Kampala (*Tompkins*), type† ♂ in Coll. Rothschild.

subsp. *isogenis*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 18 (1914).

Hind wing of male with the discoidal spot and terminal band black-brown as in female.

Hab. Congo, Bopoto (*Smith*), type† ♂ in Coll. Rothschild.

127*a*. **Ægocera gynandra.** (Plate LXXI. fig. 19.)

Mitrophrys gynandra, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 20, pl. 4*b* (1914).

Head and thorax deep chocolate-brown; frons creamy white with a black medial stripe, the dorsum of thorax with creamy white stripe; antennæ black, the basal joint creamy white; pectus and

legs orange, the tibiæ with black bands, the tarsi black ringed with white; abdomen orange with dorsal series of black spots towards base and bands towards extremity. Fore wing dark chocolate-brown; a creamy white maculate stripe from base of costa to submedian fold just before termen, formed by four spots, the 1st spot elongate, its upper edge indented near base and angled in the cell, the 2nd oblong, the 3rd bar-shaped, the 4th wedge-shaped; a rounded spot in end of cell; a broad oblique postmedial band from costa to below vein 3, more or less narrowing at costa, its lower extremity rounded on outer side and angled inwards on inner side; a patch of silvery scales below costa near base, a bar at middle of cell and another below the extremity of the 1st spot of the fascia, a curved striga on discocellulars, a few scales beyond the postmedial band, a bar beyond the 3rd spot of the fascia, and some irroration on termen; cilia creamy white. Hind wing orange; a chocolate-brown discoidal bar and broad terminal band, its inner edge excurved at middle and incurved at vein 2; cilia pale yellow. Underside of fore wing with the base, costa, and inner area to beyond middle orange.

Hab. Congo, Katanga, Kambove (*Neave*), 1 ♂, 1 ♀; Angola, Kibokolo do Zombo (*Lewis*), 1 ♂, Bihé, Pedreira (*Ansorge*), 1 ♂, co-type. *Exp.* 54 millim.

128. Ægocera obliquisigna, insert (syn.) :—

Ægocera kibwesensis, Strand, Arch. Naturg. lxxv. i. 3, p. 367 (1909)
Ægocera kibwesensis, ab. *æquipartita*, Strand, Arch. Naturg. lxxv. i. 3, p. 367 (1909).

♀. Thorax and fore wing deep chocolate-brown, the latter with a small creamy white bar in the cell, conjoined to the extremity of the wedge-shaped patch below it; hind wing orange, some blackish above base of inner margin, a large black discoidal lunule, the terminal area black, its inner edge sinuous and excurved at middle, cilia yellow; underside of fore wing dark brown, the basal area, costal area to end of cell, a fascia below the cell to well beyond middle, the spot in cell and oblique band orange; hind wing without the black above base of inner margin.

ab. 1. *æquipartita*. Fore wing with the maculate fascia broader and its medial spots equal in size.

128*a*. Ægocera mesia. (Plate LXXI. fig. 18.)

Metrophrys mesia, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 19, pl. 4 *c* (1914).

♂. Head white with some chocolate-brown at back; antennæ black, palpi dark brown fringed with yellow hair in front, the 3rd joint white at base, black at tip; thorax dark chocolate-brown with a white dorsal stripe; pectus and legs orange-yellow, the fore and mid tibiæ black-brown above, the hind tibiæ with blackish band near extremity, the tarsi black ringed with white; abdomen orange-yellow with dorsal series of slight black bars. Fore wing

deep red, the costal area and medial part of inner area blackish irrorated with white, the terminal area irrorated with white; a maculate white fascia from below base of costa to submedian fold near termen, divided into five spots, the 1st rounded, the 2nd oblong, its upper edge angled in the cell, the 3rd oblong, the 4th bar-shaped, the 5th small and wedge-like; an elliptical white spot irrorated and defined by blackish in the cell towards extremity, and an oblique postmedial white band irrorated and defined by blackish from below costa to vein 3 where it is slightly angled inwards; silvery blue bars from costa before middle and below the extremity of the 2nd spot of the fascia, silvery bars across middle of cell, on the discocellulars, beyond the 4th spot of the fascia, and beyond the postmedial band between veins 7 and 5, and some silvery on termen except towards apex; cilia creamy white. Hind wing orange-yellow; a red discoidal lunule, and a broad terminal band, its inner edge excurved at middle; cilia yellow. Underside of fore wing red, the costa and inner margin yellow to beyond the middle, the spot in cell and postmedial band yellow.

Hab. Congo; Uganda (*Doggett*), 1 ♂, Unyoro. *Exp.* 40 millim.

132*a*. Ægocera schenci. (Plate LXXI. fig. 17.)

Syfanoidea schencki, Bartel, Verh. zool.-bot. Ges. Wien, liii. p. 126 (1903); Jord. Seitz, Gr.-Schm. xv. Afr. ii. pl. 4*d*.
Ægocera leighi, Jord. Nov. Zool. xiii. p. 161 (1906).

Head yellowish white, the frons with some red scales; palpi and sides of frons red, the former with the tip of 3rd joint black; vertex of head with black point; antennæ black towards tips; thorax red mixed with yellowish white scales; pectus and legs orange, the fore coxæ red, the fore and mid tibiæ with two black spots, the tarsi black ringed with white; abdomen orange with dorsal series of black spots and lateral series of points, the ventral surface whitish tinged with red. Fore wing deep red suffused with blackish and thickly irrorated with grey-white; a yellowish white fascia from base of costa along median nervure to beyond origin of vein 2 expanding into triangular patches at middle of cell and to submedian fold at origin of vein 2; orbicular and reniform hardly defined; an oblique yellowish white bar from costa beyond middle to the reniform; the terminal area yellowish white suffused and irrorated with red; a terminal series of small red lunules defined on inner side by yellowish white lunules. Hind wing deep orange; a small black discoidal spot; a subterminal series of lunulate black spots, those below veins 4 and 3 small and round and the spot in submedian interspace large. Underside of fore wing orange with black spots in cell and on discocellulars and reddish apical patch; hind wing with reddish apical patch, the subterminal spots reduced to a small spot below vein 3 and two towards tornus.

Hab. Natal, Durban (*Clark*), 1 ♀ (*Leigh*), type †♂ *leighi* in Coll. Rothschild. *Exp.* 38 millim.

132 *b*. Ægocera tricolora. (Plate LXXI. fig. 16.)

Ægocera tricolora, Beth.-Baker, A. M. N. H. (8) iii. p. 434 (1909); Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 11, pl. 4 *a*.

Head and thorax black, the sides of frons, shoulders, and patagia with white stripes; pectus orange; femora and tibiæ fringed with orange hair, the tarsi ringed with white; abdomen orange tinged with crimson with dorsal black fascia and band at extremity, the anal tuft and ventral surface orange, sublateral series of black spots. Fore wing black; a broad scarlet fascia on inner margin from near base to near tornus; a small subbasal white spot below costa; an antemedial wedge-shaped spot below costa and a very oblique band from just above median nervure to submedian fold; a small medial white spot below costa; an oblique postmedial band from below costa to below vein 3, rounded at extremities and rather constricted at middle; an oblique silvery blue medial line from below costa to above median nervure with another line from below median nervure to near tornus; a silvery blue discoidal line and a line beyond the postmedial band from costa to vein 2 curving round below the extremity of the band; the terminal area slightly irrorated with white; cilia silvery blue at tips. Hind wing scarlet with a black terminal band narrowing to costa and tornus; cilia tipped with white from apex to below vein 4, then with silvery blue. Underside of fore wing with the inner area white to beyond middle, a short subbasal streak below costa and antemedial streak in cell sometimes connected by a bar at its extremity with a small spot above median nervure, the spot below middle of costa and postmedial band as above.

Hab. Congo, Matala (*Powell-Cotton*), type † ♂ in Coll. Bethune-Baker, Kambove (*Neave*), 2 ♂, 1 ♀. *Exp.* 50 millim.

132 *c*. Ægocera dispar, Roths. trans. form *Tuerta* no. 167, & insert (syn.):—

Schausia flavifrons, Beth.-Baker, A. M. N. H. (8) xii. p. 66 (1913).

Mombasa, type † ♂ in Mus. Oxon.

*134 *a*. Parægocera lycaon.

Euthisanotia lycaon, Druce, A. M. N. H. (6) xx. p. 300 (1897); Jord. Nov. Zool. xv. p. 254, pl. xi. f. 1.

Fore wing of male with elongate groove of ribbed membrane below middle of costa.

Head white; palpi chocolate-brown banded with white; frons brown at sides; antennæ brown; thorax chocolate-red with broad white stripes on tegulæ and patagia and vertex of thorax; pectus white tinged with yellow; legs brown, the tibiæ and tarsi ringed with white; abdomen orange-yellow, the basal crest chocolate-red followed by a dorsal series of diffused brown spots, the ventral

surface whitish. Fore wing chocolate-red sparsely irrorated with white scales except at base; subbasal line white, very oblique from costa to vein 1 where it joins the oblique white antemedial band, arising just below costa and ending at vein 1; orbicular represented by an oblique silver bar surrounded, except above, by a large U-shaped white mark extending from subcostal nervure to submedian fold; an oblique silvery discoidal bar; a large white patch beyond the cell from just below costa to vein 4, oblique above and

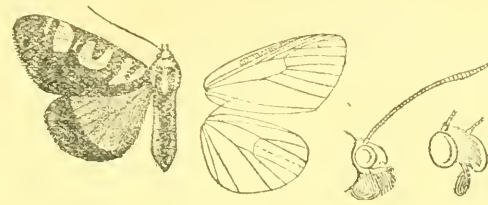

Fig. 109.—*Parægocera lycaon*, ♂. ½.

rounded below, a slight diffused whitish bar beyond it from costa; cilia white at tips. Hind wing orange-yellow with a dark chocolate-brown terminal band, broad at costa, narrowing to tornus; cilia white at tips. Underside of fore wing chocolate-red with a large white basal patch, except on costal area, enclosing the round brown orbicular and with oblique outer edge, the postmedial white patch triangular, from below costa to above vein 2.

Hab. Brazil, Amazons, Fonte Boa (*Klages*), ♂ in Coll. Rothschild; Ecuador, Sarayacu (*Buckley*), type † ♀ in Coll. Joicey. *Exp.* 50 millim.

Genus **AETHODES**.

Type.

Aethodes, Hmpsn. Nov. Zool. xxv. p. 216 (1918) ..... *angustipennis*.

Proboscis fully developed; palpi obliquely upturned, the 2nd joint reaching to about middle of frons and fringed with long hair in front produced to a point at extremity, the 3rd long and thickly scaled below; frons with small pointed conical process at middle; eyes large, smooth; antennæ slightly dilated towards extremity; tibiæ slightly fringed with hair and without spines; abdomen with hairy crests on basal segments. Fore wing very narrow, the apex rounded, the termen evenly curved; vein 3 from well before angle of cell; 5 from just above angle; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

In key differs from *Parægocera* in the frons having a small pointed conical prominence, the fore wing very narrow.

134 *b*. Aethodes angustipennis.

Aethodes angustipennis, Hmpsn. Nov. Zool. xxv. p. 217 (1918).

♂. Head and thorax purplish red mixed with white; antennæ brown; frons white; palpi white with a dark brown band on 2nd joint, the 3rd joint brown; pectus and hind legs yellowish;

fore and mid legs banded brown and white; abdomen yellow, the crests black-brown. Fore wing purplish red thickly irrorated with white; a diffused inwardly-oblique white antemedial band defined on outer side by deeper red, patches in and below the cell; a deep red discoidal patch with crimson line from it to inner margin; postmedial line deep red, rather diffused, excurved below costa,

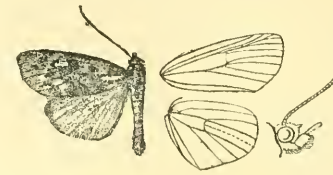

Fig. 110.—*Aethodes angustipennis*, ♂. ½.

then oblique and slightly waved; a rather dentate deep red subterminal shade with a small spot beyond it at discal fold; the apex rather suffused with red. Hind wing pale orange-yellow; the termen narrowly pale red on apical half. Underside pale orange-yellow; fore wing with the terminal area purplish red, broadly at costa and narrowing to tornus; hind wing with the apex narrowly pale red.

Hab. N. Nigeria, Minna (*Macfie*), 1 ♂ type. *Exp.* 36 millim.

144. **Mimeusemia econia**, insert:—

regina, Strand, Lep. Cat. v. p. 26 (1912), for ab. 1.

145 *a*. **Mimeusemia vilemani.** (Plate LXXI. fig. 8.)

Mimeusemia vilemani, Hmpsn. A. M. N. H. (8) viii. p. 414 (1911).

♂. Head and thorax black, the vertex of head, tegulæ, and patagia with white stripes, the metathorax with small white spot; palpi with some white at base and white ring at extremity of 2nd joint; pectus orange, the tibiæ banded with orange, the tarsi ringed with white; abdomen banded black and orange. Fore wing black; a rounded yellowish white antemedial spot in cell, medial elliptical spot from discal fold to well below vein 2 and obliquely placed postmedial spots beyond the angles of cell, the upper rounded, the lower rather triangular; some silvery blue irroration below costa to end of cell, short streak above base of vein 1, medial spots in and below cell and above vein 1, discoidal striga, slight curved postmedial series of spots and two spots at tornus; cilia white at apex and above tornus. Hind wing orange, the basal, costal, and terminal areas black, the black apical area expanding quadrately into the cell to origin of vein 2 and with bar-shaped yellowish white spot on it between veins 7 and 4; cilia with some white towards apex and above vein 1.

Hab. Formosa, Kanshirei (*Wileman*), 1 ♂, 1 ♀ type. *Exp.*, ♂ 46, ♀ 58 millim.

146. **Mimeusemia basalis**, insert (syn.):—

Mimeusemia hainana, Jord. Nov. Zool. xv. p. 254, pl. ix. f. 10 (1908).—Hainan. Type † in Coll. Rothschild.

and *siccima*, Strand, Lep. Cat. v. p. 26 (1912), for ab. 1.

150. **Mimeusemia proerosia**, insert:—

Agarista simplex, Lucas, Pr. Linn. Soc. N. S. W. (2) vi. p. 301 (1891), which has priority.

Type † ♂ in Coll. Lucas from N. Queensland.

subsp. *eumelas*, Jord. Seitz, Gr.-Schm. xi. Ind. Austr. ii. p. 18, pl. 3*f* (1912).

♂. Fore wing with two yellow points in cell towards extremity and a spot below the extremity of the oblique band in submedian fold; hind wing with the cilia only yellow, and no yellow on termen.

♀. Fore wing without the points in cell or spot in submedian fold.

Hab. Gilolo (*Waterstradt*), type † ♂, ♀ in Coll. Rothschild.

subsp. *buruensis*, Jord. Seitz, Gr.-Schm. xi. Ind. Austr. ii. p. 18 (1912). = *obiensis*.

Hab. Buru, Mt. Mada (*Dumas*), type † ♂ in Coll. Rothschild.

Mimeusemia nigrescens, Joicey & Talbot, Trans. Ent. Soc. 1916, p. 81, pl. 6. f. 4.

Blacker; hind wing with the yellowish white marks on terminal area extending as rather diffused spots to above vein 4.

Hab. Dutch N. Guinea, Schouten Is. (*Pratt*), type ♀ in Coll. Joicey.

152. **Schausia leona**, insert:—

subsp. *congoana*, Jord. Nov. Zool. xv. p. 253 (1908).

♂. Fore wing with the basal white patch yellower, broader, and less oblique, the postmedial patch more narrow, elongate, and oblique.

Hab. Congo, Kassai R., Luebo, type † ♂ in Coll. Rothschild.

Genus **HOPLARISTA**.

	Type.
Hoplarista, Hmpsn. P. Z. S. 1910, p. 399	*hæmaplaga*.

Proboscis fully developed; palpi with the 2nd joint obliquely upturned and moderately fringed with hair, the 3rd porrect, rather long and somewhat dilated at extremity; frons with long flattened corneous process at middle bifid at extremity and corneous plate below it excised in front; eyes large, round; antennæ slightly dilated towards extremity; thorax clothed with hair and scales mixed, the metathorax with spreading crest; tibiæ moderately fringed with hair; abdomen with hairy crest at base only. Fore wing with the apex rounded, the termen evenly curved and not crenulate; veins 3 and 5 from near angle of cell; 6 from upper angle; 9 from 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

In key differs from *Pseudalypia* in the frons having a long flattened corneous process bifid at extremity.

153 *a*. Hoplarista hæmaplaga.

Hoplarista hæmaplaga, Hmpsn. P. Z. S. 1910, p. 399, pl. xxxvi. f. 24; Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 13, pl. 4 *a*.

♂. Head and thorax dark chocolate-brown mixed with pale yellow and some orange; frons with lateral yellowish white spots above; pectus orange; legs banded black and orange; abdomen banded black and orange, the ventral surface dark brown with series of yellow bars. Fore wing dark chocolate-brown irrorated with silvery blue and some yellow scales; a triangular yellow antemedial patch in cell with elongate blood-red patch below it, connected with the oblique yellow medial band extending from below costa to submedian fold, edged by blood-red at sides, its inner edge slightly angled inwards at median nervure and submedian fold and its outer edge strongly dilated below; a postmedial yellow patch from below costa to vein 2, rounded above and its lower extremity pointed and

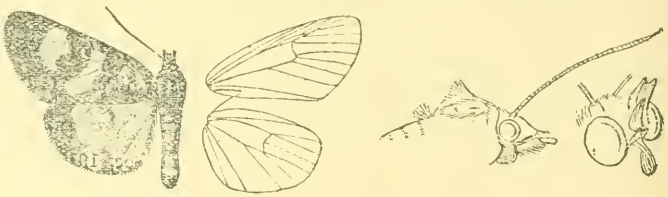

Fig. 111.— *Hoplarista hæmaplaga*, ♂. ½.

bent inwards. Hind wing deep orange; a slight black discoidal lunule; a black-brown terminal band, its inner edge slightly incurved at discal fold and strongly at vein 2; a small yellow spot on termen at submedian fold. Underside of fore wing yellow, the costa black-brown except towards base; a black-brown and red spot in middle of cell with red spot below it in submedian interspace, a large lunulate discoidal patch connected with the dark costa and with some dark suffusion below it, a broad dark terminal band expanding towards apex and interrupted by yellow below vein 2; hind wing with the costa black-brown to near base.

♀. Fore wing with the antemedial patch in cell red with slight yellow spot on it, widely separated from the medial band which is narrower and less dilated below, the postmedial patch not extending below vein 4 where it is somewhat pointed on outer side; hind wing with the terminal band broader and without yellow spot at submedian fold.

Hab. N.E. Rhodesia, Lake Bangweolo (*Neave*), 1 ♂, 1 ♀ type. *Exp.*, ♂ 50, ♀ 52 millim.

154. Copidryas gloveri.

Egg. Riley, Insect Life, i. p. 104, ff. 16 20 (1888).

On underside of leaf of food-plant *Portulacca oleracea*.

Larva. Young: pale or yellowish green with dark shading across

middle of body. Adult: pale grey or dull white with black dashes on side of each somite and with shadings of salmon-pink.

Pupa in a tubular burrow with gummed lining and closed with particles of earth.

*154 *a*. Copidryas cosyra.

Euthisanotia cosyra, Druce, Biol. Centr.-Am., Het. ii. p. 328, pl. 70. f. 4 (1896).

♀. Head and thorax dark reddish brown mixed with grey; abdomen orange, the ventral surface white. Fore wing dark brown thickly irrorated with grey scales and with pale olive scales above and below the white fascia which arises from just below costa near base, then widens and extends from just above median nervure to submedian fold to the end of cell, then bent upwards and narrowing to a point on costa before apex, dilated beyond lower angle of cell and its lower edge strongly excised between submedian fold and vein 3 and slightly between veins 3 and 4; traces of a dark-defined reniform stigma; a silvery blue line on outer side of the white fascia from costa to vein 5; a waved dark terminal line slightly defined by white towards tornus. Hind wing orange with a fuscous terminal band, its inner edge angled on veins 2 and 1 and not quite reaching tornus; a waved orange almost terminal line obsolescent towards apex; cilia white, blackish towards tornus. Underside of fore wing orange; the orbicular and reniform blackish, the former small round, the latter oblique, lunulate; terminal area fuscous shading to yellowish white at termen.

Hab. U.S.A., Arizona; Mexico (*Trujillo*), 1 ♀, type † in U.S. Nat. Mus. *Exp.* 44 millim.

The frontal process is shorter than in *C. gloveri* ♂ and rounded at extremity, as also is the case in the female of *gloveri*.

Larva. Kunzé, J. N.Y. Ent. Soc. xiv. p. 133 (1906).

Olivaceous brown; head with triangular white mark at middle; body with the dorsal line white, interrupted; subdorsal line white; each somite with transverse series of short black tubercles ringed with white and with white hair from each. Food-plant, *Opuntia arbuscula*.

155. Euschirropterus valkeri, insert (syn.):—

Euschirropterus klagesi, Jord. Nov. Zool. xv. p. 254 (1908).

Venezuela, type † in Coll. Rothschild; Ecuador.

subsp. *tucumanus*, Jord. Nov. Zool. xv. p. 254 (1908).

♀. Hind wing with the spot on termen in submedian fold creamy white.

Hab. Argentina, Tucuman, type † in Coll. Rothschild. *Exp.* 42 millim.

ab. *fusca*, Jord. Nov. Zool. xv. p. 255 (1908).

Fore wing with the white fascia suffused with brown and irrorated with white.

156. **Euschirropterus poeyi**, insert:—

subsp. *pulverosa*, Dyar, Pr. U.S. Nat. Mus. xlvii. p. 175 (1914).

♂. Hind wing without the dark termen, the yellow spot near tornus defined by a few dark scales.

♀. Fore wing without dark line in submedian fold defining the white and dark areas; the orbicular large, its centre irrorated with white, rounded.

Hab. Panama, La Chorrera.

Genus **ACANTUERTA**.

Type.

Acantuerta, Hmpsn. A. M. N. H. (7) xix. p. 241 (1907)..... *thomensis*.

Proboscis fully developed; palpi upturned, the 2nd joint fringed with long hair in front, the 3rd porrect and somewhat dilated at extremity; frons with truncate conical prominence with raised rim in front and corneous plate below it, very narrow above between the eyes which are naked; antennæ somewhat dilated towards extremity; mid and hind tibiæ spined; abdomen with dorsal crests on 1st two segments. Fore wing with veins 3 and 5 from near angle of cell; 6 from upper angle; 9 and 10 anastomosing with 8 to form the areole; 11 from cell. Hind wing with veins 3, 4 from angle of cell; 5 obsolescent from middle of discocellulars; 6, 7 from upper angle; 8 anastomosing with the cell near base only.

In key differs from *Syfania* in the mid and hind tibiæ being strongly spined, the abdomen with crests on two basal segments.

*157 *a*. **Acantuerta thomensis.**

Tuerta thomensis, Jord. Nov. Zool. xi. p. 445 (1904); id. Seitz, Gr.-Schm. xv. Afr. ii. pl. 4 *d*.

♂. Head, thorax, and abdomen dark chocolate-brown; palpi with the 2nd joint whitish in front at extremity; upper part of frons at sides and basal joint of antennæ whitish; pectus, femora,

Fig. 112.—*Acantuerta thomensis*, ♂. ½.

and ventral surface of abdomen whitish, the dorsal crests with a metallic gloss, the claspers with yellowish hair. Fore wing deep chocolate-brown; a dull greenish fascia formed of diffused scales

defined by chocolate above median nervure from near base to beyond middle, crossed by an oblique chocolate striga and dilated to near inner margin before middle; a small chocolate annulus with greenish centre in middle of cell; a discoidal greenish bar defined by chocolate and with narrower bar beyond it; postmedial line greenish defined by chocolate, oblique from below costa to vein 3, then bent inwards to lower angle of cell and oblique to above inner margin, a wedge-shaped greenish patch on chocolate suffusion beyond it from below costa to vein 4 and a rounded patch in submedian interspace; a fine chocolate terminal line. Hind wing black-brown with a reddish tinge; an orange patch in, below, and beyond the cell; cilia with fine white line at base and whitish tips. Underside of fore wing with the basal half orange, except at costa, with a small chocolate spot in end of cell, an oblique whitish bar beyond the cell between veins 7 and 3; hind wing orange with a small chocolate spot at upper angle of cell, terminal area chocolate, broad at costa narrowing somewhat below vein 3.

♀. Darker; fore wing suffused with purplish, the whitish bar obsolescent; hind wing with brown streaks on the veins traversing the orange patch, the terminal band broader.

Hab. W. Africa, St. Thomas I. (*Mocquerys*), type † ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 40, ♀ 46 millim.

158. **Tuerta platensis**, insert :—

subsp. *bolivar*, Jord. Nov. Zool. xv. p. 254 (1908).

♀. Fore wing with the white fascia broader; the orbicular and reniform larger.

Hab. Venezuela, Bolivar, type † in Coll. Rothschild.

158 *a*. **Tuerta insulica**. (Plate LXXI. fig. 9.)

Tuerta insulica, Hmpsn. A. M. N. H. (8) iv. p. 365 (1909).

♂. Head and thorax chocolate-red mixed with white; palpi black, white at base and tips; frons white; antennæ brown; pectus white, yellow at sides; abdomen yellow with the crests brown. Fore wing white thickly irrorated with chocolate-red; subbasal line represented by a red striga from costa; antemedial line indistinct, red, oblique, irregular; orbicular and reniform represented by rather diffused red patches with silvery centres, the former rather elliptical, the latter somewhat quadrate, white patches between and beyond them; postmedial line absent; subterminal line represented by an obscure series of somewhat dentate chocolate marks with some silvery scales on them and some whitish beyond them; terminal area darker; cilia chocolate with a series of small white spots at base. Hind wing golden yellow with a broad black-brown terminal band tinged with red, its inner edge excurved at middle; cilia white. Underside of fore wing with the basal half yellow, the terminal half red-brown, the white bars before and beyond the reniform prominent.

Hab. Trinidad (*Kaye*), 1 ♂ type. *Exp.* 36 millim.

*160 *a*. Tuerta rema. (Plate LXXI. fig. 15.)

Tuerta rema, Druce, A. M. N. H. (8) vi. p. 169 (1910); Jord. Seitz, Gr.-Schm. xv. Afr. ii. pl. 4 *e*.

♂. Head black irrorated with white; thorax chocolate-red irrorated with white; pectus, legs, and abdomen golden yellow. Fore wing with the costal area white to beyond middle and below the cell defined by sap-green below and on outer edge, the inner and postmedial areas purple, the former irrorated with white, the terminal area white; a double antemedial chocolate-red line filled in with green from submedian fold to inner margin; some pale sap-green suffusion in and below end of cell with a white point on it in cell, a white discoidal striga and white points on median nervure and base of vein 2; the green on outer edge of the white area emitting a streak on inner side to lower angle of cell; postmedial line chocolate-red, oblique below vein 4, a black patch irrorated with white beyond it on costa; subterminal line slight, white, waved, defined on outer side by chocolate-red lunules irrorated with a white. Hind wing golden yellow with a slight brown streak on extremity of vein 1 and brown subterminal bar above vein 1 with a little red beyond it on termen; cilia white. Underside of fore wing yellow to below and beyond the cell, the inner and terminal areas whitish.

Hab. "Germ. E. Africa," type † ♂ in Coll. Joicey. *Exp.* 40 millim.

161 *a*. Tuerta cyanopasta. (Plate LXXI. fig. 14.)

Tuerta cyanopasta, Hmpsn. A. M. N. H. (7) xix. p. 241 (1907); Jord. Seitz, Gr.-Schm. xv. Afr. ii. pl. 4 *e*.

♀. Head and thorax black-brown; pectus pale orange at sides; fore tibiæ and the tarsi with greenish rings; hind tibiæ with the basal half mostly orange and fringed with orange hair; abdomen orange, the dorsal crests black, the extremity blue-black, the ventral surface with the basal half brownish, the terminal half blue-black and forming an elliptical depression. Fore wing deep chocolate-brown suffused with silvery blue to the subterminal line; the base of inner margin black-brown; a waved antemedial black bar from costa to median nervure and an almost medial waved bar from submedian fold to inner margin; blue stigmata strongly defined by black in end of cell and on discocellulars, the former oblique elliptical and conjoined at lower extremity to the latter, which is lunulate and dilated at lower extremity; postmedial line strong, black, excurved below costa and at middle, angled inwards at discal fold, strongly incurved below vein 3 to lower edge of reniform, then waved; the outer edge of the blue area dentate with small blackish spots in the interspaces, angled outwards to veins 6, 4, 3, then incurved; a terminal series of small black spots and a fine waved terminal line; cilia bluish fuscous with a slight pale line at base. Hind wing deep orange with a black-brown terminal band, its inner edge incurved at discal

fold, narrowing to a point at tornus; cilia with a fine pale line at base. Underside of fore wing orange except the costal area and the broad terminal area, a black spot in end of cell and broad oblique discoidal bar to the terminal band at vein 2; hind wing with golden brown suffusion on costal half except at base and before the terminal band except towards tornus.

Hab. Br. E. Africa, N'joro (*Cholmley*), 1 ♀ type. *Exp.* 46 millim.

162. Tuerta trimeni, insert (syn.) :—

ab. *transita*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 18 (1914).

S. Nigeria, Lagos, type † ♀ in Coll. Rothschild.

ab. *semialba*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 19 (1914).
=*tricolor*.

Natal, Durban (*Leigh*), type † ♂ in Coll. Rothschild.

ab. *nigriventris*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 19 (1914).

♀. Abdomen with the ventral surface black-brown.

Natal, Durban (*Leigh*), type † ♀ in Coll. Rothschild.

ab. *albiventris*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 19 (1914).

♀. Abdomen with the ventral surface white.

Br. E. Africa, Kiboko R. (*Ansorge*), type † ♀ in Coll. Rothschild.

162*a*. Tuerta ovifera.

Tuerta ovifera, Hmpsn. P. Z. S. 1910, p. 400, pl. xxxvi. f. 25.

♀. Head and thorax black-brown; palpi with the 2nd joint white in front towards base, the 3rd joint white at base; sides of frons and streaks on tegulæ and patagia yellowish white; pectus and base of legs yellow, the tibiæ banded with yellow; abdomen orange-yellow with dorsal black-brown stripe, the ventral surface black-brown with white bands. Fore wing deep chocolate-brown, the terminal area irrorated with grey-white scales; a pale yellow wedge-shaped patch in and below the cell from base to origin of vein 2, its upper edge excised towards extremity; a minute triangular yellow spot in upper end of cell; an oblique elliptical pale yellow postmedial patch from below costa to below vein 3; some silvery scales below costa near base; oblique greyish bars with silvery scales on them in middle of cell and on discocellulars; postmedial line double, the inner line grey, the outer silvery, obliquely excurved round the yellow patch from costa to vein 2, then angled inwards to below end of cell and again excurved; cilia greyish, silvery at tips. Hind wing deep orange with a broad black-brown terminal band; cilia brownish at base, white at tips. Underside of fore wing with the basal half orange with a small black spot in end of cell.

Hab. N.E. Rhodesia, E. Luangwa Distr. (*Neave*), 2 ♀ type. *Exp.* 48–54 millim.

162 *b*. Tuerta mahdi.

Ægocera mahdi, Pag. Jahrb. Nass. Ver. lvi. p. 9, pl. i. f. 3 (1903).
Paratuerta argentifascia, Fawcett, P. Z. S. 1915, p. 94, pl. i. f. 7 *a*.

♀. Head and thorax red-brown mixed with white; frons white at sides; palpi with the extremities of 2nd and 3rd joints white; pectus white; legs brown and white, the fore tibiæ banded yellow and blackish; abdomen yellow, the basal crest white and black followed by some brown irroration. Fore wing chocolate-brown thickly overlaid by grey-white scales, the inner medial area redder; a wedge-shaped white fascia in cell from base, then along median nervure to lower angle, its outer edge oblique and sinuous, met at lower angle of cell by an oblique white band from costa towards apex, its outer edge slightly angled at vein 4; an oblique buff antemedial band defined on inner side by silver from the fascia to inner margin and a similar band defined on outer side by silver defining the outer edge of the postmedial band and fascia, then continued to inner margin and excurved below submedian fold; some silvery scales below costa near base, in upper part of extremity of cell and on discocellulars; an indistinct red subterminal band irrorated with silver; a series of small black spots just before termen. Hind wing orange-yellow; a black-brown terminal band narrowing to tornus, its inner edge incurved at vein 2. Underside of fore wing brown, the costa irrorated with white, the cell and area below it yellow, an oblique yellow postmedial band from below costa to vein 3, the termen with white before the blackish spots; hind wing with the brown extending narrowly on costa to before middle.

Hab. Somaliland, Hanadscho (*Erlanger*), type † ♀ in Coll. Rothschild; Br. E. Africa, Kedai (*Feather*), 1 ♀ type *argentifascia*. *Exp.* 34–36 millim.

163. Tuerta sabulosa, del. *Fenaria seversa*, Grote.

167 *a*. Tuerta hemicycla. (Plate LXXI. fig. 10.)

Tuerta hemicycla, Hmpsn. A. M. N. H. (7) xiv. p. 166 (1904).

♂. Head and thorax clothed with brown-red and white hair; tarsi ringed with white; abdomen fulvous dorsally tinged with red, whitish at base. Fore wing pale olive thickly irrorated with brown-red; a subbasal red band from costa to submedian fold; orbicular and reniform defined by red, with red centres, and with patches of silvery scales on them; a semicircular white mark defining the former and inner edge of latter which is defined on outer side by an oblique white band from below costa to below vein 4 with sinuous edges; two red lines with silver between them from the semicircular mark to inner margin; a fine terminal line; cilia white and red. Hind wing pale red, the terminal area deep red; cilia white and red; the underside paler.

Hab. Bahamas, Abaco (*P. A. Meers*), 1 ♂ type. *Exp.* 30 millim.

168. Omphaloceps daria.

ab. 2. Hind wing deep orange to the black terminal area.
Br. C. Africa, Mt. Mlange (*Neave*), 1 ♂.

169. Omphaloceps triangularis, insert :—

Rothia mariæ, Swinh. Trans. Ent. Soc. 1904, p. 139.

A form with the markings of both wings white.
Uganda, Kampala (*Rattray*), 1 ♀ type.

Page 629. Genus **HESPAGARISTA**, insert :— Type.

Chætostephana, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 20 (1914). *rendalli*.

for Sect. II.

170. Hespagarista echione, insert :—

subsp. *spilota*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 21, pl. 2 *e* (1914).

Palpi, tibiæ, and abdomen without white points; fore wing with the yellowish white markings somewhat reduced; hind wing with small yellowish white markings beyond the cell above and below discal fold.

Hab. "Germ. E. Africa," Itumba (*Baxter*), type † ♀ in Coll. Rothschild.

171. Hespagarista caudata, insert :—

subsp. *eburnea*, Jord. Nov. Zool. xxii. p. 274, f. 1 (1915).

Wings with the yellowish white markings somewhat more extensive.

Hab. "Germ. E. Africa," Manow, type † ♂ in Coll. Rothschild; N. Rhodesia, Alala Plateau (*Neave*). 3 ♂.

172. Hespagarista rendalli, insert (syn.) :—

subsp. *angolana*, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 20 (1914).

Angola, Bihé, type † ♂ in Coll. Rothschild.

*178 *a*. Pseudalypia geronimo.

Pseudalypia geronimo, Barnes, Can. Ent. xxxii. p. 44 (1900); Dyar. Cat. Lep. N. Am. p. 97; Barnes & McD. Contr. Nat. Hist. Lep. N. Am. i. 4, pl. xiii. f. 11.

Head, thorax, and abdomen black with a slight metallic gloss; proboscis yellow; legs with the hair on inner side orange. Fore wing brownish black; two large quadrate pale yellow medial patches forming a band, the costal patch edged by metallic blue scales on inner side. Hind wing rather browner black.

Hab. U.S.A. Arizona, Huachuca Mts. *Exp.* 38 millim. This species is unknown to me.

184. Alypia langtoni.

♂. Hind wing with rounded subbasal pale yellow patch.

*193 *a*. Massagidia xenia. (Plate LXXI. fig. 11.)

Massagidia xenia, Jord. Seitz, Gr.-Schm. xv. Afr. ii. p. 22 (1914).

Fore wing with veins 7, 8, 9, 10 stalked; hind wing of male with large tuft of hair from inner margin before tornus.

♂. Head, tegulæ, and prothorax crimson, the rest of thorax black glossed with metallic blue; antennæ black; abdomen black glossed with metallic blue, the anal tuft crimson. Fore wing black glossed with purple-blue, the veins and inner margin streaked with metallic blue; a yellowish white band defined on inner side by diffused metallic blue from middle of costa to inner margin beyond middle, its inner edge oblique, its outer rather diffused and expanding below vein 4; cilia white at tips at apex. Hind wing black suffused with purple-blue, the veins of terminal area streaked with metallic blue; a broad white band from middle of costa to terminal part of inner margin, its outer edge slightly waved; the tuft of hair on inner margin black; cilia white at tips at apex. Underside with purple-blue suffusion at base of wings only.

♀. Fore wing with the band broader especially towards costa; hind wing with the band yellowish white and broader towards tornus.

Hab. Cameroons, Ja R., Bitye (*Bates*), type† ♂, ♀ in Coll. Rothschild. *Exp.*, ♂ 50, ♀ 54 millim.

193 *b*. Massagidia tenuifascia.

Massagidia tenuifascia, Hmpsn. P. Z. S. 1910, p. 401, pl. xxxvi. f. 12.

♀. Head and tegulæ crimson, the 3rd joint of palpi and antennæ black; thorax and abdomen black slightly shot with blue, the terminal segments of abdomen crimson; pectus in front and fore femora crimson. Fore wing black shot with blue, the veins and submedian fold streaked with brilliant blue; a rather broad medial white band, oblique from costa to lower angle of cell, then erect; cilia white at apex. Hind wing black shot with blue; a medial white band narrowing to inner margin and with its outer edge curved; cilia white at apex.

One specimen has veins 6, 7, 8, 9, 10 of fore wing stalked.

Hab. Congo, Kambove Distr. (*Neave*), 3 ♀ type. *Exp.* 48–54 millim.

200. Ophthalmis lincea, insert :—

var. *leucapex*, Strand, Mitt. Zool. Mus. Berlin, v. 3, p. 474 (1911).

Fore wing with the apex white.

"Germ. N. Guinea."

subsp. *hemixanthia*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 19(1912).

Similar to *bambucina* but hind wing with the orange band half the width of wing.

Hab. Tenimber (*Doherty*), type† ♂ in Coll. Rothschild.

subsp. *intermedia*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 19 (1912).

Similar to the typical form but hind wing with the orange band narrow.

Hab. Palawan, type † ♂ in Coll. Rothschild.

subsp. *bismarcki*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 19 (1912).

Fore wing with the cilia only at apex pale orange-yellow; hind wing with the orange band moderate.

Hab. New Hanover (*Webster*), 1 ♂ co-type, type ♂ in Coll. Rothschild, Neulauenberg, New Britain.

subsp. *dimidiata*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 19 (Feb. 1912).

biakensis, Strand, Lep. Cat. v. p. 37 (March 1912).

For subsp. 3.

subsp. *admiralitatis*, Roths. Nov. Zool. xxiii. p. 334 (1916).

Fore wing with the cilia towards apex white and no apical patch; hind wing with the terminal half deep orange-yellow.

Hab. Bismarck Arch., Admiralty Is., Manus I. (*Meek*), type † ♂, ♀ in Coll. Rothschild.

201. Ophthalmis milete, insert (syns.) :—

subsp. *sumbana*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 20 (1912).

Sumba, ♂ = the typical form.

subsp. *leucisca*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 19 (1912).

„ ab. *niveata*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 19 (1912).

Java, ♀ = the typical form.

subsp. *ornata*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 20 (1912).

Sumbawa, ♂ = *conferta*.

subsp. *torva*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 19 (1912).

Lombok, ♀ = *conferta*.

206. Diamuna falcata, insert (syn.) :—

Diamuna haenschi, Dohrn, Stett. Ent. Zeit. lxvii. p. 275, fig. (1906).

Ecuador.

*215 *a*. Seirocastnia extensa. (Plate LXXI. fig. 12.)

Seirocastnia extensa, Jord. Nov. Zool. xv. p. 255 (1908.)

♂. Head and thorax black; palpi at base and pectus yellow; abdomen yellow with a slight dorsal black line and the anal tuft black. Fore wing black with a broad oblique yellow postmedial band from below costa to above tornus, expanding at middle and rounded at lower extremity. Hind wing yellow with a black terminal band extending narrowly on costa and inner margin to near base. Underside of fore wing with triangular yellow patch in and below the cell.

Hab. Colombia, R. Dagua, type † ♂ in Coll. Rothschild.

Exp. 66 millim.

218. **Seirocastnia præfecta**, insert :—

nervalis, Strand, Lep. Cat. v. p. 39 (1912), for ab. 2.

Page 660. Genus **MELANCHROIOPSIS.**

	Type.
Phasis, Wlk. ii. 312 (1854), nec Hübn. Verz. p. 73 (1827).....	*noctilux.*
Melanchroiopsis, Dyar, Pr. U.S. Nat. Mus. liv. p. 341 (1918)...	*acroleuca.*

*222 *a*. **Melanchroiopsis acroleuca.** (Plate LXXI. fig. 13.)

Melanchroiopsis acroleuca, Dyar, Pr. U.S. Nat. Mus. liv. p. 341 (1918).

♂. Head orange, the antennæ black, the palpi with black patch at side of 2nd joint and the 3rd joint black; thorax and abdomen black glossed with blue, the tegulæ orange at tips, the anal tuft orange; peetus deep orange. Fore wing black, the veins and submedian fold streaked with silvery blue-grey, the cell with a silvery blue-grey streak, forking towards its extremity; a rather small white apical patch; eilia sllvery grey. Hind wing black glossed with blue especially on the veins; cilia white. Underside black glossed with blue; fore wing with the apical white patch as above.

Hab. Mexico, Sierra del Guerrero (*Muller*), in U.S. Nat. Mus. *Exp.* 50 millim.

224. **Longicella mollis**, insert :—

decipiens ab. *catamelas*, Jord. Seitz, Gr.-Schm. xi. Ind.-Austr. ii. p. 20 (1912).

The greater part of fore wing and the hind wing except inner area black.

Nias, Hili Madjedja (*Kannegieter*), type † ♂ in Coll Rothschild.

225. **Longicella luctifera.**

Larva. Piepers, Tijd. v. Ent. xlviii. p. 199.

Velvety black with transverse white lines; some long white hairs from dorsal area; claspers and head orange. Food-plant, ? *Coleus bicolor.*

List of Unrecognised Species.

Chelonomorpha formosana, Miyake, Annot. Zool. Jap. vi. 2. p. 79 (1907) ..... Formosa.

Noctua felicia, Stoll, Cram. Pap. Exot. v. p. 58, pl. xii. f. 11 (1791), the type of genus *Trissophaes*, Hübn. Verz. p. 263 (1827). ? *Diamuna*..... Surinam.

Tuerta ruspini, Auriv. Arkiv f. Zool. v. 5. p. 9, fig. 43 (1909), type in Brussels Museum. ? *Veymeria* ..... Congo.

Corrigenda.

Page 473. *Dionychopus*, Herr.-Schäff. (1856) type *lactinea* is a synonym of *Amsacta*, Wlk.; the genus will stand as *Manychia*, Wllgrn.

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Paranerita metapyrioides. (Plate LXV. fig. 16.)

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Hemihyalea subtenuimargo. (Plate LXVI. fig. 4.)

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Hemihyalea vitreata. (Plate LXVI. fig. 5.)

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Hemihyalea debilis. (Plate LXVI. fig. 6.)

Page 278. 1490 *b*. **Halisidota syggenes**, n. n.

Halisidota affinis, Roths. Nov. Zool. xvi. p. 280 (1909, Dec.), nec id. A. M. N. H. (8) iv. p. 216 (1909, Sept.).

Page 355. 1679 *b*. **Mænas homæma**, n. n.

Diacrisia affinis, Roths. Nov. Zool. xvii. p. 127 (1910), nec id. idem p. 118.

Page 432.

Estigmene mediopunctata. (Plate LXII. fig. 2.)

Page 435.

Estigmene internigralis. (Plate LXII. fig. 20.)

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Pericallia coorgensis. (Plate LXII. fig. 12.)

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